

**Build an
Audio Generator**

Audio

THE AUTHORITATIVE MAGAZINE ABOUT HIGH FIDELITY • OCTOBER 1975 \$1.00 ©

47425 



Choice - Not Chance

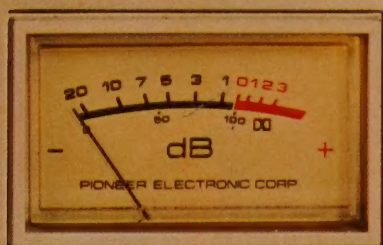
Annual Equipment Directory

U1448140 0376 50611008P1101312

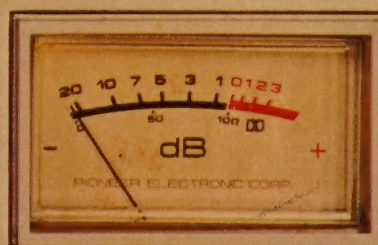
14

**The most
extraordinary
cassette deck
value ever
offered.**





REC

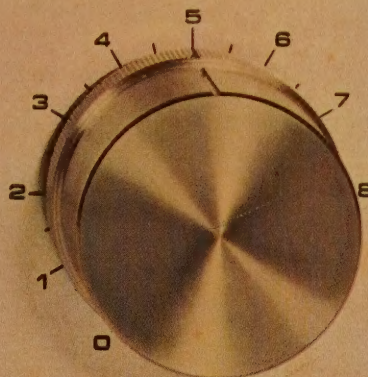


TAPE DOLBY NR
BIAS EQ

STD STD OFF
CrO₂ CrO₂/Fe-Cr ON

PHONES L—MIC—R

INPUT
LEFT — RIGHT



PIONEER STEREO CASSETTE TAPE DECK MODEL CT-F2121

The new 2121. With Dolby* under \$200.†

Ever since the cassette deck stepped into the spotlight with proven high fidelity performance, great advances in tape and cassette deck technology have been made. Despite this progress, most of the high fidelity industry was convinced that it was virtually impossible to build a really superior front-loading, front-control cassette deck equipped with Dolby — that could sell for less than two hundred dollars.

Pioneer thought it might be impossible, too. But we figured it was worth the try.

The engineers at Pioneer were given the 2121 project two years ago. They were asked to build a front-access, front-control cassette deck loaded with features. A deck that would outperform any unit in the two hundred dollar price range that had ever been built before.

The result is the no-compromise CT-F2121 — a cassette deck with enormous capability, performance, reliability and features. Pioneer believes the CT-F2121 has the greatest combination of value ever put into a cassette deck at such an extremely reasonable price.



Switch from one mode to another, bypassing the Stop lever.

Everything's up front for optimum operating convenience.

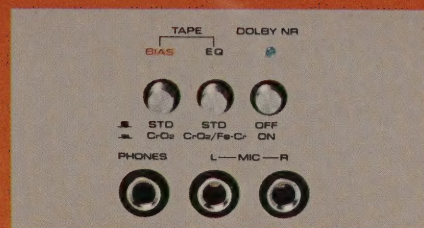
Pioneer's engineers have designed the CT-F2121 to give you the highest degree of flexibility in use. You can stack it easily with other components in your system because every control function, as well as cassette loading, is operable from the front panel. In addition, the illuminated cassette compartment permits rapid cassette loading at an easy-to-see 30° angle. An LED indicator lets you know when you're in the recording mode. And, as all Pioneer components, the controls are simple to use and logically arranged.

Improved sound reproduction with built-in Dolby B system.

The CT-F2121's selectable Dolby B provides as much as 10dB improvement in signal-to-noise ratio with standard low noise tapes. There's an even greater improvement with chromium dioxide tape. An indicator light tells you instantly when the Dolby system is in operation. And to insure better, interference-free recordings of FM stereo broadcasts, Pioneer has built in a multiplex filter.

Outstanding performance with every type of tape.

Separate bias and equalization switches permit you to use any kind of cassette tape: standard low noise, chromium dioxide — and even the newest ferrichrome formulations. The CT-F2121 brings out the fullest capabilities of each tape. And to produce the best performance, the operating manual of the CT-F2121 gives you a chart listing the most popular cassette tape brands with their recommended bias and equalization control settings. *There's never any guesswork.*



Separate bias & equalization switches for any type of cassette tape.

Versatile features increase listening enjoyment and simplify recording.

Pioneer has outdone itself on the CT-F2121 with a host of easy-to-use features. A long life permalloy-solid record and play head and a ferrite erase head insure excellent signal-to-noise ratio. The transport operating levers that permit, direct, jam-proof switching from one mode to another without having to operate the Stop lever, are a great advancement. And, like Pioneer's more expensive cassette decks, the CT-F2121 has a separate electronic servo-system and a solenoid that provides automatic stop at the end of tape travel in play, record, fast wind and rewind.

Twin illuminated VU meters, plus separate input level controls for each channel help you set accurate recording levels. Stereo microphone inputs as well as the headphone output jack are all easily accessible on the front panel.

By any point of reference, compare the CT-F2121's combination of performance and features with cassette decks costing much more. You can come to only one conclusion — at under \$200†, this is the most extraordinary cassette deck value ever offered.

Frequency Response (Chrome Tape):

30-16,000 Hz

Wow & Flutter (WRMS): 0.12%

Signal-to-Noise Ratio (with Dolby): 58dB

Input Sensitivity: 0.3mV — 63mV (mic); 63mV — 12V (line)

Outputs: 450mV (line & DIN); 80mV 8 ohms (headphones)

U.S. Pioneer Electronics Corp., 75 Oxford Drive, Moonachie, New Jersey 07074.

West: 13300 S. Estrella, Los Angeles 90248 / Midwest: 1500 Greenleaf, Elk Grove Village, Ill. 60007 / Canada: S. H. Parker Co.

Check No. 49 on Reader Service Card

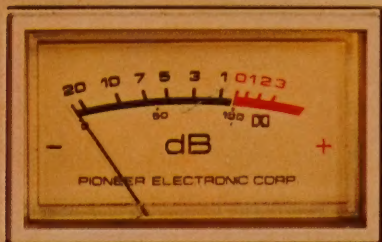


The CT-F2121 comes ready for custom installation. Handsome, optional cabinet with walnut veneered top and sides also available.

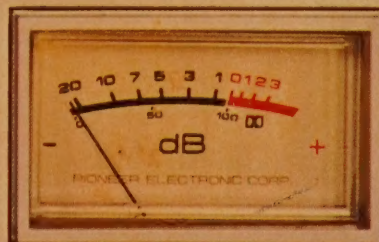
PIONEER
when you want something better.



*Dolby is a trademark of Dolby Laboratories, Inc. †(Optional cabinet with walnut veneered top and sides. Approximate value, \$24.95.) Prices listed above are manufacturer's approximate value.



REC



TAPE
BIAS EQ

DOLBY NR

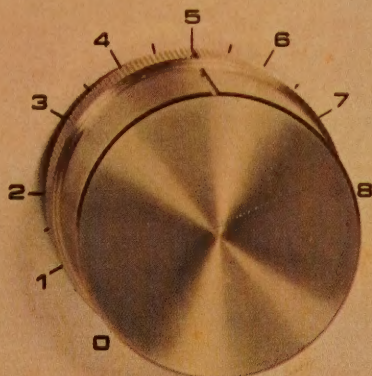



PHONES

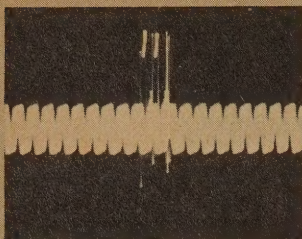
L—MIC—R



INPUT
LEFT — RIGHT



 **PIONEER STEREO CASSETTE TAPE DECK MODEL CT-F2121**



Actual, unretouched photo of an oscillograph test.

The oscillograph you see is an actual photo of a high-quality audio system "playing" a fingerprint.

You're hearing fingerprints now through your speaker system. Instead of the sound your precious discs are capable of. And no vacuum record cleaner, brush-arm or treated cloth will remove them. None.

The sound of your fingerprint

But Discwasher™—with new **du** fluid—removes fingerprints completely. Along with dust. And manufacturing lubricants (added to make pressing faster) that can act like groove-blocking fingerprints. All this cleaning without pulling polymer stabilizers from your vinyl discs.

Discwasher™. The only safe, effective way to silence the printed finger. At Audio specialists world wide.



Discwasher, Inc.
909 University,
Columbia, Mo. 65201

Audio

October, 1975

"Successor to **RADIO** Est. 1917"

Vol. 59, No. 10

Feature Article

Build an Audio Generator/M. J. Salvati

Annual Equipment Directory

- 30 Directory of Manufacturers
 - 36 Amplifiers
 - 44 Preamplifiers
 - 48 Tuners
 - 52 Receivers
 - 58 Multi-play Turntables
- 60 Single-Play Turntables & Tonearms
 - 64 Phono Cartridges
 - 68 Open-Reel Tape Decks
- 72 Cassette & Cartridge Tape Decks
 - 76 Loudspeakers
 - 102 Headphones
 - 105 Equalizers
 - 106 Microphones

Record Reviews

- 110 The Column/Fred DeVan
- 117 Classical Reviews/Edward Tatnall Canby
- 121 Jazz & Blues

Audio in General

- 4 Audioclinic/Joseph Giovanelli
- 8 Audio Etc/Edward Tatnall Canby
- 14 Behind the Scenes/Bert Whyte
- 20 Dear Editor
- 90 Advertising Index
- 126 Classified Advertising

EDITOR Eugene Pitts III
ASSOCIATE EDITOR Edward Tatnall Canby
ASSOCIATE EDITOR Bert Whyte
ASSISTANT EDITOR Charles Graham

PUBLISHER Jay L. Butler
MARKETING DIRECTOR Sanford L. Cahn
DESIGN Janet Lee
CIRCULATION MANAGER Jean Davis
ADVERTISING PRODUCTION Lynn Lyons

Contributing Editors: Herman Burstein, Martin Clifford, Fred De Van, Leonard Feldman, Martha Sanders Gilmore, Joseph Giovanelli, Richard C. Heyser, Bascom H. King, C.G. McProud, B.V. Pisha, Donald M. Spoto, George W. Tillett.

AUDIO (title registered U.S. Pat. Off.) is published monthly by North American Publishing Co., Irvin J. Borowsky, President; Frank Nemeyer, and Jay L. Butler, Vice Presidents; R. Kenneth Baxter, Vice President/Production; Nate Rosenblatt, Promotion Director; Mary Claffey, Circulation Director.

RATES—United States only: 1 year for \$7.00, 2 years for \$12.00, 3 years for \$17.00; outside the U.S.: 1 year for \$9.00, 2 years for \$16.00, and 3 years for \$23.00. Printed in U.S.A. at Columbus, Ohio. All rights reserved. Entire contents copyrighted 1975 by North American Publishing Co. Second class postage paid at Philadelphia, Pa. and additional mailing office. Back issues, \$2.00 each. World Library Congress number: ISSN 0004-752X. Dewey Decimal number: 621.381 or 778.5.

REGIONAL SALES OFFICES: Jay L. Butler, Publisher and Sanford L. Cahn, Marketing Director, 41 East 42nd St., New York, N.Y. 10017, telephone (212) 687-8924.

Jay Martin, 2525 West 8th St., Los Angeles, California, 90057, telephone (213) 385-2917.

REPRESENTATIVES: Continental Europe: John Ashcraft, 12 Bear St., Leicester-Square, London W.C.2, telephone 930-0525. For Benelux and Germany, W.J.M. Saunders, Mgr., Herengracht 365, Amsterdam, Holland, telephone 24.09.08.

Japan: Japan Printing News Co., Ltd., No. 13-2 Chome Ginza Higasi, Chuo-ku, Tokyo, telephone 541-5795.

AUDIO Editorial and Publishing Offices, 134 N. 13th St., Philadelphia, Penna. 19107
Postmaster: Send Form 3579 to the above address



The best way to listen to a speaker is with your eyes open.

All speakers are not alike.

Even speakers that appear similar can sound very different.

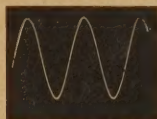
For example, when you compare a B-I-C VENTURI™ speaker system with others, you'll be astonished at how much more sound it delivers...even from a modest amplifier.

Behind the speaker grille you'll see the Venturi name over a cabinet slot that looks like a bass reflex "port" but isn't. "Bass reflex" speakers, whether they use slots, holes, or shelves, merely resonate an enclosure to a single frequency, achieving bass emphasis only at that one point.

The opening you see on a B-I-C VENTURI cabinet is the terminus of the Venturi path inside the enclosure (U.S. Pat. 3892288). It works as an acoustic transformer to produce bass energy as much as 140 times greater than would otherwise be achievable from a woofer alone in the same size cabinet.



A—Shows output of low frequency driver when driven at a freq. of 22 Hz. Sound pressure reading, 90 dB. Note poor wave form.



B—Output of B-I-C VENTURI coupled duct (under the same conditions as Fig. A) Sound pressure reading 111.5 dB (140 times more output than Fig. A) Note non-distorted appearance.

Oscilloscope photos reveal that a B-I-C VENTURI speaker actually eliminates harmonic distortion from reproduced tones, literally purifying the sound and resulting in clean, tight and extended reproduction. That you can hear!

Notice the square-shaped mouth of the exclusive BICONEX™ midrange horn (pat. pend.). This unit is exceptionally efficient. It has remarkably smooth, uncolored response because of its unique conical/exponential flare. It is made of an inert substance to avoid "ringing" and spurious resonances. But,

equally important, it provides wide-angle dispersal of sound in both horizontal and vertical planes, making speaker positioning non-critical. There is a super tweeter that operates in only the last octave for accurate musical timbre.



Even the control panel on the front of the baffle board contains a surprise. It controls an exclusive built-in device (pat. pend.) which compensates for the normal loss in hearing of bass and treble tones, (figure C) at various listening levels. Regardless of amplifier loudness settings, you hear all the music, all the time. This is accomplished automatically with the switch in the "on" position, or you can adjust tonal balance manually for the type of music you play or the kind of sound you prefer.

There's really much more to B-I-C VENTURI speakers such as how they compare with other design types in performance, and the way they function in a high fidelity system.

If you want to read some interesting and informative literature, ask your franchised B-I-C VENTURI dealer for a copy of our new 20-page consumer guide to loud-speaker performance, or write to us: B-I-C VENTURI Westbury, N.Y. 11590.

Div. of Avnet, Inc.

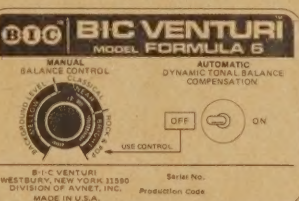
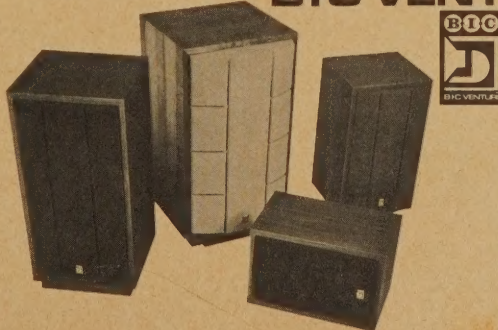


Fig. C



B-I-C VENTURI™



Sound reasons 21 thru 25 why an SAE gives you what you pay for.

You are an audio connoisseur. You know exactly what you are looking for in audio components. The right features. The right functions. The right power. But you can't find one at the right price. And you won't. What you're looking for costs plenty to produce. Some build additional price right into their units. We build additional unit into our price. Here are some reasons why an SAE gives you what you pay for.

21 Unprecedented program control for the home user. Half octave equalization. Alteration of each individual channel over a $\pm 8\text{dB}$ or $\pm 16\text{dB}$ range at any or all of twenty different frequency bands. Use these controls for making pre-equalized tapes, or smoothing out speakers or a listening room. These features hallmark the operation of our new Mark XXVIII Stereo Octave Equalizer. At \$550 it provides an inexpensive means for performing all of these functions at home yourself.

22 Precision-wound toroid inductors, wound in our own factory, are common in all SAE equalizers. These carefully constructed inductors are used to assure quiet, distortion-free tonal alterations.

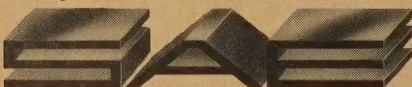
23 The quiet, versatile, Mark IM Stereo Pre-amplifier designed for use with an external equalizer contains no tone circuitry. Instead, meters read the exact voltage output. Otherwise, it contains SAE preamplifier features like 3-way tape monitor/copy mode and precise stepped volume control switch coupled with a five position range switch. It gives the connoisseur what he's looking for at \$660.

24 The SAE engineering philosophy is based on "State-of-the-Art" components. If it's not "State-of-the-Art," we don't introduce it. Nor do we build it. In this constant quest, we have introduced many "Firsts" to audio component engineering. And with almost every engineering innovation we have been able to achieve what the rest of the industry has been searching for. Equipment does get expensive at this level, but you get what you pay for, and what you're looking for.

25 If you are handling sophisticated, complicated, state-of-the-art audio equipment, you're bound to have some questions about the operation. And if you have just invested a fortune in that equipment, it would be good to know that someone stands behind it. For those purposes, we maintain a complete Customer Service Department to answer all of your questions by mail or phone. Part of what you pay for is this insurance.

There are many other reasons. Send us the attached coupon and we'll send you an additional 25, plus literature, and the location of a dealer who'll be able to supply even more.

Components for the Connoisseur



Scientific Audio Electronics, Inc.
P.O. Box 60271 Terminal Annex, A10/75
Los Angeles, California 90060
I want more reasons, thank you.

Name _____
Address _____
City _____ State _____ Zip _____

Check No. 59 on Reader Service Card

Audioclinic

Joseph Giovanelli

Further Notes on CATV

Having worked for some time in community antenna (cable) TV, I was interested in your reply to Keith Webster's letter in April. Connecting additional sets to the cable without additional payment (and usually without the right equipment) would be frowned upon—at the very least. This is especially true if, as is often the case, such connection causes interference to non-subscribers in the area.

In apartment complexes and crowded suburban areas, with some people on the cable and others using their own antennas, it's almost impossible to keep the CATV signals from causing interference to non-subscribers. Everyone of the non-subscribers feels, justifiably, that he has a right to proper reception (from the "free" airwaves), whether or not some people who have CATV service want to cheat the CATV company by hooking up extra sets to their cable connection.

This situation was typified by one customer we had in Poughkeepsie. This man had decided he was dissatisfied with having just one set hooked up to the cable tap we installed for him. He wanted an upstairs bedroom set connected also. He ran a long piece of regular 300-ohm twin lead (flat TV lead-in) from the downstairs set, over the house, to the upstairs bedroom on the other side. It worked fine for him—but it interfered with the reception on 50 to 100 non-subscribers' sets in the area—out to a couple of hundred feet from his house.

The twin-lead, being unshielded (cable TV uses co-axial, hence self-shielding leads) would radiate a signal which resulted in a vertical bar being displaced at varying distances across the picture (on nearby non-subscribers' sets tuned to the same channel). The bar was caused by the delay

introduced by the CATV system, which might be more, or less, than (but never quite the same as) the delay in the regular, non-system reception. In some severe cases, the interference could even wipe out the color.

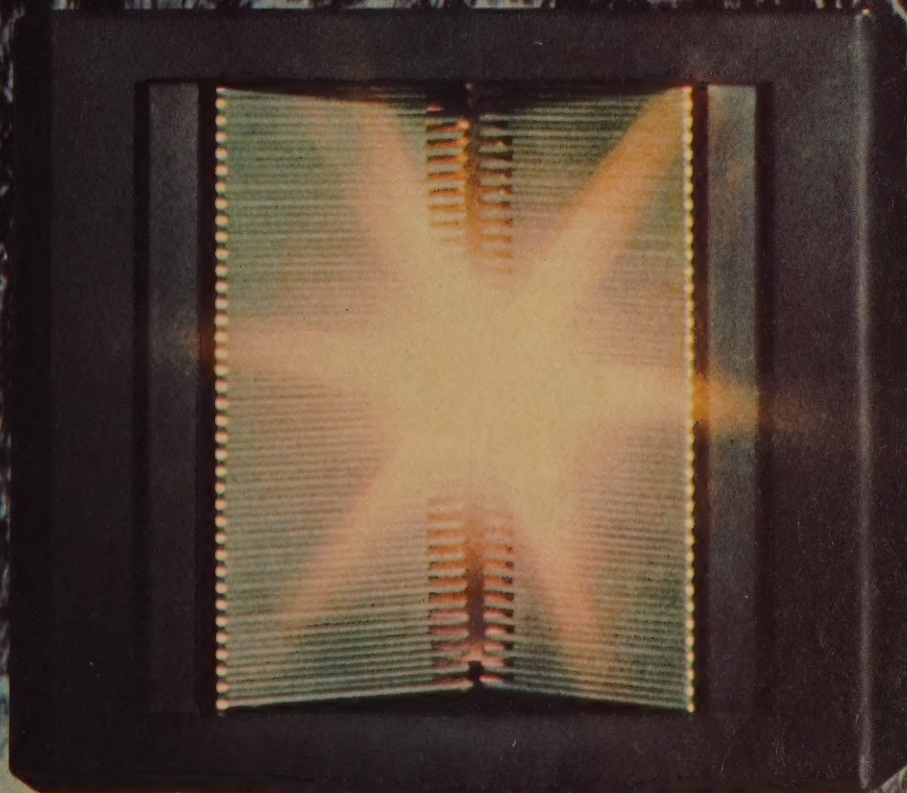
On another occasion I had to disconnect a subscriber because his set was radiating its own i.f. signal like the devil's own interference. What had happened was that someone had "fixed" his tuner and, in replacing it in the set had left off its shielding.

If anyone has trouble with this sort of interference or suspects that this is the cause, it can be tracked down as follows. Get a directional TV antenna and a portable TV set and stick them in a car (or pickup truck to make rotating the antenna easier). Or try a pair of "rabbit ears" for the antenna, spread straight out like a folded dipole. Tune to the station being distributed on the cable, and drive around. When you see the picture coming in bright and clear from one of the houses, drive around it. We used to check for unauthorized multiple taps that way, and we always found either an unauthorized 300-ohm twin-lead tap, or that the signal was coming from someone's improperly-operating TV receiver tuner.

To multiply the sets operating off a cable the subscriber should do what the cable company does, use a 75-ohm to 300-ohm matching transformer at each end of a length of RG59U coaxial cable.

George W. Brooks
Poughkeepsie, N.Y.

If you have a problem or question on audio write to Mr. Joseph Giovanelli, at AUDIO, 134 North Thirteenth Street, Philadelphia, Pa. 19107. All letters are answered. Please enclose a stamped, self-addressed envelope.



sound as clear as light

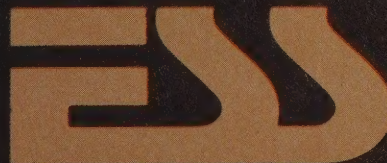
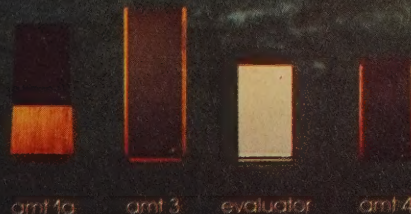
Experience a clarity of sound beyond anything you've heard from loudspeakers rooted in past technology — the sound as clear as light of ESS Heil air-motion transformer speaker systems.

ONLY the ESS Heil air-motion transformer diaphragm can, alone accelerate air to a speed more rapid than its own moving surfaces. Instantly. Accurately. Cleanly.

ONLY the ESS Heil air-motion transformer has been acclaimed around the world as the first really new air-moving principle in five decades.

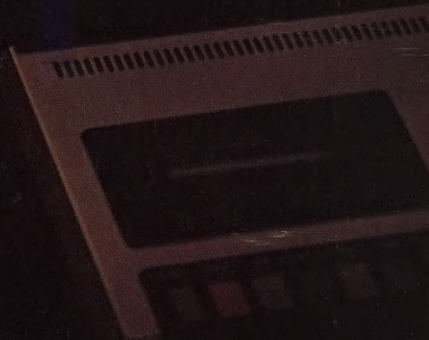
ONLY the ESS Heil air-motion transformer is the loudspeaker of the future, free from bondage to cones, domes, voice coils, mass and inertia.

When a revolutionary new principle recreates the excitement and grandeur of an original performance with a clarity and dynamic power never experienced before, technical arguments aren't necessary. Hear the new ESS standard of excellence yourself. Visit a franchised ESS dealer, one of a handful perceptive enough to bypass the conventional and premier the most advanced state-of-the-art designs in high fidelity, a dealer who understands the loudspeaker of tomorrow — the ESS Heil air-motion transformer. Listen to ESS, you'll hear sound as clear as light.



ESS, inc.

9613 oates drive • sacramento, ca. 95827



TEAC

Musical Instruments don't play all by themselves. Neither do tape recorders. Unlike any other component in your system, a tape recorder needs your involvement to make it work properly.

The tapes you make will bear your personal imprint — not only in terms of sequencing the musical selections, but even the recordings themselves. You can control the artistic shaping of the audio signals...a function of your personal musical perceptions.

Your tape recorder becomes an extension of you. And just as in musical instruments, the quality differences between tape recorder brands will determine how good the music can sound. Buying a good one is worth it.

From our basic 3-motor 3-head A-2300S or A-2300SD (with Dolby) to the A-3300S (10½" reels) to the A-4300 (automatic reverse) to the top of the line A-7300...you'll find a TEAC recorder with just the right combination of features and functions to suit your specific needs.

We've been making superior recorders like these for over 20 years. If you'd like a demonstration of how that experience can benefit you, just call (800) 447-4700* toll free to find the name of your nearest TEAC retailer.

*In Illinois, call (800) 322-4400.

Hand crafted since 1954.

TEAC®

The leader. Always has been.

TEAC CORPORATION OF AMERICA:
7733 Telegraph Road, Montebello, California 90640

©TEAC 1975 Dolby is a trademark of Dolby Laboratory Inc.

**SPEAKERS
AT \$600
A PAIR?**



**OR THESE
AT \$49.75*
A PAIR?**

If your ears are ready for \$600 speakers, but your budget isn't, we have a way to satisfy both. Sennheiser headphones. Using the same acoustic design principles that have made our professional microphones industry standards, Sennheiser Open-Aire® headphones reproduce sound with a realism most loudspeakers can't begin to approach. With wide, flat response. Low distortion. Excellent transient response (even in the bass region!) And sheer intimacy with the music. All *without* sealing in your ears. Whether you're waiting for that pair of \$600 speakers or just curious about a pair of headphones some experts have compared with \$1000 speakers... the answer's at your audio dealer's.

*Manufacturer's suggested list for Model HD414. Deluxe Model HD424 also available at \$79.75.

SENNHEISER
ELECTRONIC CORPORATION

10 West 37th Street, New York 10018 (212) 239-0190
Manufacturing Plant: Bissendorf/Hannover, West Germany

Check No. 61 on Reader Service Card

Audio ETC

Edward Tatnall Canby

AD MUSIC! Seldom hi fi but 100 percent audio. It is surely the one music that every one of us hears the most of, by an enormous margin. On sheer volume, at least, it is music. 95 percent of the total signal. I may be a classical purist and so on, but don't think I keep my ears away from it. How could I? Nor, in case you thought so, am I always distressed by it. Ad music is ad music and not Beethoven—yet. How much can you expect? On the other hand, ad music is alive and kicking and in production—which means that the sky is the (potential) limit. Anything can happen, and *might* even happen. So I listen to ad music. And either I seethe and curse and groan, or I find myself mildly interested. Depends. So here's a plus. Followed by a minus, next month.

Over the years I've developed a pretty strong feeling that in any productive area—call it art or call it toothpaste—function is what shapes, and function determines value. Is the thing a success in terms of what it is trying to do? That is what matters. Ad music, like film music, exists strictly in this category and any attempt to shape it so it doesn't do what it is supposed to do is disastrous, as some composers have discovered. It must be ad music **FIRST** (and film music **FIRST**). Even if Beethoven, or J. S. Bach, were to write it, on a return visit to earth.

A radical reaction on my part, this, against everything I was duly taught about Grrreat Music. Maybe you too, if you took that old course in Music Appreciation they still keep giving. Great Art, we were told, lies high above all mundane things. It is born of profound inspiration (not to mention perspiration, as crusty old T. A. Edison put it), touched by the Gods. The Art-

ist is Different; he has Soul, he is delicately sensitive, he must not be tampered with and **ESPECIALLY** in his divine right to write exactly what he pleases!

This idea, take it from me, is transitory. It is the very essence of 19th c. Romanticism. And it dates—when it was new and young as an idea—right back to the later 18th century! The craftsman become artist, the slave of art liberated. Fascinating, and true in history. But now, you see, it leaves classical music somewhere up on a solid gold shelf. Mere commercial music is down there in the mud. Isn't that the way you always thought it was? See—you're indoctrinated too.

The Great Artist

Yes, classical music is my home base (though I avoid the word—it's like talking of "good scenery" or something, covering vast territories). If anybody believes in the stuff, I do. But I know, soberly, that nine-tenths of what we call classical began strictly as practical music—what we now might call commercial. Or even as folk music, out of the uneducated non-cultured substratum. It wasn't until the Enlightenment, the late 18th century in music, that this idea of, so to speak, the musical stratosphere, suddenly popped up. True, for a century or so the music world really acted out the theory—composers grew long hair, acted eccentric and often died of consumption. People (mostly German people) respected the Great Composer and in truth lifted him up into at least a modified stratosphere of Art. But in the long pull (and we are seeing the long pull in longer perspective every day now), this interesting phase was really short lived. Now—the Foundations are still trying to perpet-

INTRODUCING TDK SUPER AVILYN. IT OUTSOUNDS CHROME. AND THE #1 FERRICHROME.

INDEPENDENT LAB TEST RESULTS

	TDK SA	A	B	C	D
Signal-to-Noise Ratio	1 st	4 th	1 st	6 th	7 th
Distortion (I.M.)	1 st	2 nd	3 rd	7 th	6 th
Low-Frequency Response Accuracy	1 st	1 st	1 st	1 st	1 st
Mid-Frequency Response Accuracy	1 st	2 nd	5 th	5 th	2 nd
High-Frequency	2 nd	2 nd	2 nd	5 th	1 st

You want the best sound you can get from your cassette recorder without worrying about headwear. And until now, chrome and ferrichrome had the sound — they outperformed ferric oxide tapes in extended high frequency response with lower noise.

Well, TDK has advanced cassette recording to a new standard of high fidelity. It's new Super Avilyn, the cassette that outsounds chrome, the best-selling ferrichrome, and the top-ranked ferric oxide tapes.

Its magnetic particle is new. It soaks up more sound and plays it back with less distortion. That's power and clarity you can hear.

Super Avilyn doesn't require special bias/eq. setting for optimum performance. It is compatible with any tape deck that has the standard CrO₂ bias/eq. setting.

Distortion — that's the big story. Look at these lab test figures.

LEAST DISTORTION — CLEAREST SOUND.

	TDK SA	A	B	C	D
0 VU	11%	13%	26%	50%	32%
-5VU	4.5%	5.4%	11%	17.5%	5.4%
-10VU	4.2%	4.5%	8.5%	7.8%	4.8%
-20VU	4.9%	5.0%	8.0%	5.2%	6.0%

SMPTE METHOD: I.M. DISTORTION — 7000 Hz — 60Hz, 4:1 ratio.

There's just no contest. Super Avilyn delivered the clearest, cleanest sound. More lifelike sound — and to a discriminating ear, that's the ultimate test. Fact is, Super Avilyn is the new state of the art.

TDK Electronics Corp.
755 Eastgate Blvd., Garden City,
N.Y. 11530. Also available in Canada.

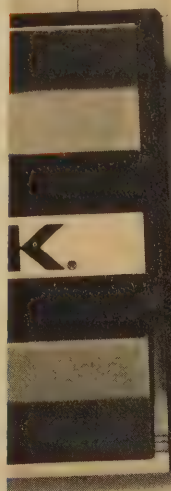


Wait till you hear
what you've been missing.

Chromdioxid,
7th. The chart

ichi 500 & 1000.

ader Service Card



Say bye-bye to fair-trade and high retail prices! Just use the envelope at the other end of this tab, and you'll receive a 96-page Warehouse Sound Co. catalog free! Huge discounts by mail on stereo and pro-sound equipment. Enclose \$1 and also receive the Music Machine Almanac — a 150-page reference guide to stereo. Note: If envelope is missing, write directly to Warehouse Sound Co., Box S, San Luis Obispo, CA 93405. Or call, (805) 544-9700.

**246 pages
of Erotica
for only
\$1⁰⁰?**



SEE OTHER END OF THIS TAB→

**SPEAKERS
AT \$600
A PAIR?**



**OR THESE
AT \$49.75*
A PAIR?**

If your ears are ready for \$600 speakers, but your budget isn't, we have a way to satisfy both. Sennheiser headphones. Using the same acoustic design principles that have made our professional microphones industry standards, Sennheiser Open-Aire® headphones reproduce sound with a realism most loudspeakers can't begin to approach. With wide, flat response. Low distortion. Excellent transient response (even in the bass region!) And sheer intimacy with the music. All *without* sealing in your ears. Whether you're waiting for that pair of \$600 speakers or just curious about a pair of headphones some experts have compared with \$1000 speakers... the answer's at your audio dealer's.

*Manufacturer's suggested list for Model HD414. Deluxe Model HD424 also available at \$79.75.

SENNHEISER
ELECTRONIC CORPORATION

10 West 37th Street, New York 10018 (212) 239-0190

Manufacturing Plant: Bissendorf/Hannover, West Germany

Check No. 61 on Reader Service Card

Audio ETC

Edward Tatnall Canby

AD MUSIC! Seldom hi fi but 100 percent audio. It is surely the one music that every one of us hears the most of, by an enormous margin. On sheer volume, at least, it *is* music. 95 percent of the total signal. I may be a classical purist and so on, but don't think I keep my ears away from it. How could I? Nor, in case you thought so, am I always distressed by it. Ad music is ad music and not Beethoven—yet. How much can you expect? On the other hand, ad music is alive and kicking and in production—which means that the sky is the (potential) limit. Anything can happen, and *might* even happen. So I listen to ad music. And either I seethe and curse and groan, or I find myself mildly interested. Depends. So here's a plus. Followed by a minus, next month.

Over the years I've developed a pretty strong feeling that in any productive area—call it art or call it toothpaste—function is what shapes, and function determines value. Is the thing a success in terms of what it is trying to do? That is what matters. Ad music, like film music, exists strictly in this category and any attempt to shape it so it doesn't do what it is supposed to do is disastrous, as some composers have discovered. It must be ad music **FIRST** (and film music **FIRST**). Even if Beethoven, or J. S. Bach, were to write it, on a return visit to earth.

A radical reaction on my part, this, against everything I was duly taught about Grrreat Music. Maybe you too, if you took that old course in Music Appreciation they still keep giving. Great Art, we were told, lies high above all mundane things. It is born of profound inspiration (not to mention perspiration, as crusty old T. A. Edison put it), touched by the Gods. The Art-

ist is Different; he has Soul, he is delicately sensitive, he must not be tampered with and **ESPECIALLY** in his divine right to write exactly what he pleases!

This idea, take it from me, is transitory. It is the very essence of 19th c. Romanticism. And it dates—when it was new and young as an idea—right back to the later 18th century! The craftsman become artist, the slave of art liberated. Fascinating, and true in history. But now, you see, it leaves classical music somewhere up on a solid gold shelf. Mere commercial music is down there in the mud. Isn't that the way you always thought it was? See—you're indoctrinated too.

The Great Artist

Yes, classical music is my home base (though I avoid the word—it's like talking of "good scenery" or something, covering vast territories). If anybody believes in the stuff, I do. But I know, soberly, that nine-tenths of what we call classical began strictly as practical music—what we now might call commercial. Or even as folk music, out of the uneducated non-cultured substratum. It wasn't until the Enlightenment, the late 18th century in music, that this idea of, so to speak, the musical stratosphere, suddenly popped up. True, for a century or so the music world really acted out the theory—composers grew long hair, acted eccentric and often died of consumption. People (mostly German people) respected the Great Composer and in truth lifted him up into at least a modified stratosphere of Art. But in the long pull (and we are seeing the long pull in longer perspective every day now), this interesting phase was really short lived. Now—the Foundations are still trying to perpet-

Say bye-bye to fair-trade and high retail prices! Just use the envelope at the other end of this tab, and you'll receive a 96-page Warehouse Sound Co. catalog free! Huge discounts by mail on stereo and pro-sound equipment. Enclose \$1 and also receive the Music Machine Almanac—a 150-page reference guide to stereo. Note: If envelope is missing, write directly to Warehouse Sound Co., Box S, San Luis Obispo, CA 93405. Or call, (805) 544-9700.

**246 pages
of Earotica
for only
\$1⁰⁰?**



A

SEE OTHER END OF THIS TAB→

**246 pages
of
Erotica
for only
\$1⁰⁰ ?**



B

SEE OTHER END OF THIS TAB →

INTRODUCING TDK SUPER AVILYN. IT OUTSOUNDS CHROME. AND THE #1 FERRICHROME.

INDEPENDENT LAB TEST RESULTS

	TDK SA	A	B	C	D
Signal-to-Noise Ratio	1 st	4 th	1 st	6 th	7 th
Distortion (I. M.)	1 st	2 nd	3 rd	7 th	6 th
Low-Frequency Response Accuracy	1 st	1 st	1 st	1 st	1 st
Mid-Frequency Response Accuracy	1 st	2 nd	5 th	5 th	2 nd
High-Frequency Response Accuracy	2 nd	2 nd	6 th	5 th	1 st
Maximum Output Level (3% thd)	1 st	2 nd	4 th	6 th	5 th
Output (0 VU)	1 st	4 th	5 th	2 nd	2 nd
Surface Abrasiveness	low	high	high	high	low

You want the best sound you can get from your cassette recorder without worrying about headwear. And until now, chrome and ferrichrome had the sound — they outperformed ferric oxide tapes in extended high frequency response with lower noise.

Well, TDK has advanced cassette recording to a new standard of high fidelity. It's new Super Avilyn, the cassette that outsounds chrome, the best-selling ferrichrome, and the top-ranked ferric oxide tapes.

Its magnetic particle is new. It soaks up more sound and plays it back with less distortion. That's power and clarity you can hear.

Super Avilyn doesn't require special bias/eq. setting for optimum performance. It is compatible with any tape deck that has the standard CrO₂ bias/eq. setting.

Distortion — that's the big story. Look at these lab test figures.

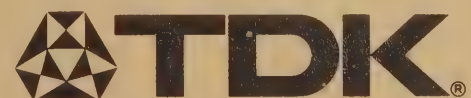
LEAST DISTORTION — CLEAREST SOUND.

RECORD INPUT LEVEL	TDK SA	A	B	C	D
0 VU	11%	13%	26%	50%	32%
-5VU	4.5%	5.4%	11%	17.5%	5.4%
-10VU	4.2%	4.5%	8.5%	7.8%	4.8%
-20VU	4.9%	5.0%	8.0%	5.2%	6.0%

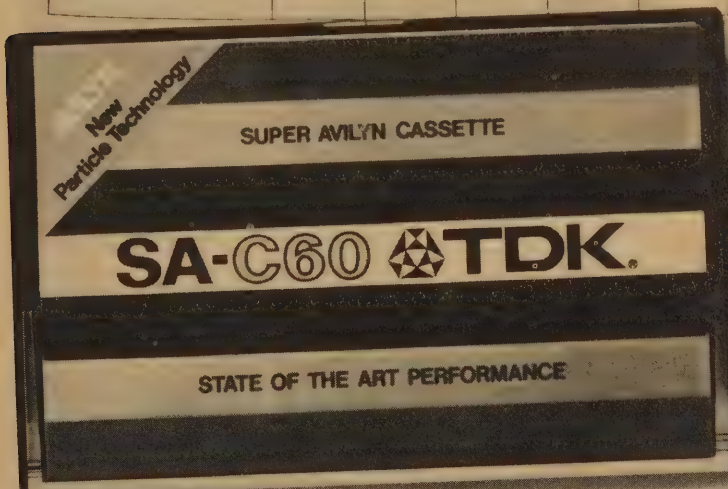
SMPTE METHOD: I.M. DISTORTION — 7000 Hz — 60Hz, 4:1 ratio.

There's just no contest. Super Avilyn delivered the clearest, cleanest sound. More lifelike sound — and to a discriminating ear, that's the ultimate test. Fact is, Super Avilyn is the new state of the art.

TDK Electronics Corp.
755 Eastgate Blvd., Garden City,
N.Y. 11530. Also available in Canada.



Wait till you hear
what you've been missing.

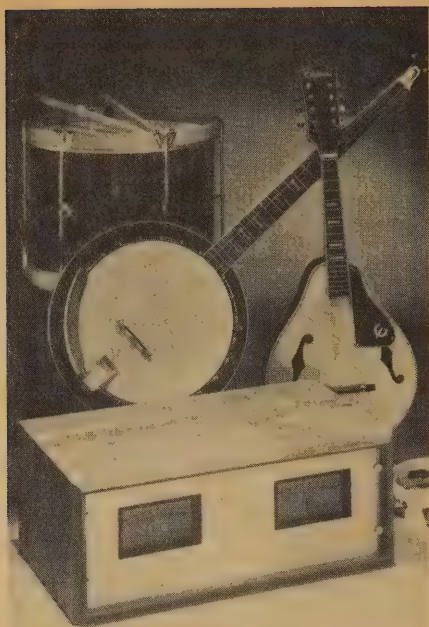


Seven tapes were tested (TDK SA, TDK KR, Scotch Chrome, BASF Chromdioxid, Advent Chrome, Scotch Classic, and Maxell UD) and ranked 1st to 7th. The chart shows the results for 5 representative tapes tested.

The following tape decks were selected for use in the tests: Nakamichi 500 & 1000, Advent 201, and TEAC 450.

SA now available in C 90.

Check No. 71 on Reader Service Card



In a class by itself.

The Phase Linear 400 Power Amplifier has only one serious competitor when it comes to advanced design, superior performance, made-one-at-a-time craftsmanship, proven reliability, elegant appearance . . . and incomparable value. And that's the Phase Linear 700B. Hear them both at your dealer soon.

Phase Linear 400

THE POWERFUL DIFFERENCE

201 watts per channel, min. RMS at 8 ohms from 20 Hz-20 kHz with no more than .25% total harmonic distortion.

PHASE LINEAR CORPORATION
20121 - 48th Avenue S.W.
Lynnwood, Washington 98036

Check No. 47 on Reader Service Card

uate it. Give the Artist his head! No restraints, no restrictions. The poor guy lives either in a total vacuum or, more likely, a professional coterie of his immediate associates and rivals. Just like the rest of us. Meanwhile—ad music goes on and on, for real.

If ad music generally isn't very important as music, that's because it has a job to do and there isn't much scope, as of the present. Enough, of course, to keep the stuff churning out by the metric ton, primed by that lure of most human endeavor, cash. But not *entirely* primed by cash. A good many ad composers probably feel a tiny bit of pride, once in awhile, for a job well done. So they try harder the next time. Pry open a tiny, sub-microscopic new bit of "scope"—as film music has long since done. I say, the sky is the limit, though the ascent skywards is millimeter by millimeter.

From my point of view, the reconciling of ad and classical music is easy. Just look back and see. The human tendency, here as elsewhere, is double. Most of the practitioners tend to do as little as possible and get away with it safely. Don't we all? But always, always, there are a few who are going to try to do just a bit more than is needed. Can't stop this. You probably get dragged into it yourself, every so often, whatever your work may be. And so music—any kind of music and any old art or product or line of goods—tends in the large to fill up its own space, then to push out a bit here and there, to perfect its technique more and more, and to go beyond the necessities. Yes—even in ad music! Bound to happen. And it *has happened*.

Bach, The Pragmatist

Do you think old Bach was a classical composer? No such word then. He was a craftsman on salary. Like the caterer who feeds the people at some event, Bach was hired to provide the music for Sunday church (four hours) every week, and to "cook" it too—that is, rehearse it. Strictly a practical job, and he was actually not a very good church composer—from my angle. He did too much. His music was too complicated and full of ideas, requiring a lot of attention. For its function, it was perhaps not as useful as his neighbor composer's, he with the name everybody has forgotten, down the road a piece. And don't think Bach didn't get criticized. He was always at war with the authorities, a stiff-necked, uncompromising old bird who would never let an ar-

gument go if he could stir it up a bit further.

Moreover—there being a lot on his side in the way of punk working conditions for low salary—he became extremely expert at remaking his old stuff into second-hand new products, recycling. For Bach was one of those harassed deadline men we all know. How would you enjoy churning out a half hour or an hour of new music every single week, copying it out, rehearsing it hastily maybe once through, some times not at all (they sight read it Sunday morning)—then tossing it into the back closet? *One, single performance!* And it was dead. New music for next week. At least the ad music composers get to hear their music more than once, in our technology. Only the "live on TV" composers get so shabbily treated, and not too often.

I know—you'll disagree, you who know the commercial composers. It's the same with them, you say. Churning out stuff, week after week, playing it once, to order, then back to the drawing board for more. That is exactly the point, then. *Bach was not a classical composer, any more than an ad composer is today.*

But Bach's recycling was so incredibly expert that his recycled music is almost invariably better than its original. Most of his biggest, Grreatest works—the B Minor Mass, and large numbers of weekly Cantatas—are patched together from recycled ideas, lying around in the discard closet.

Bach had absolutely no time, until his last years, to think of Posterity, and Great Music and all that. Not that he was modest—he knew his value. And in those last years he put together his big works, his collections, he wrote his compendia—the Art of the Fugue—to sum up his expertise. Even so, this did not constitute "classical," though it was the beginning. Bach wrote obstinately in his own way, because he was that kind of a man, an unbending, self-righteous personality who couldn't get along with his superiors who hired him. WHAT a familiar story!

Value Follows Function

And now—Bach, the classicist. Literally, over his dead body. The thing is, the good craftsman goes beyond the necessities at a big risk, often to his own immediate hurt. You can't be stiff-necked if you write for Hollywood or TV today, nor if you write ad music. *The function determines the product's value.*



Dolby FM is happening

Remember the first time you came across Dolbyized cassettes? And how surprised you were that music could sound so good in such a convenient form?

Well, now the same principles are being used to improve FM broadcasting. The audible effect of the Dolby system as used in FM is a bit more subtle than with

cassettes. But the overall results are just as important. Dolby FM is cleaner, with sparkling high frequencies free of limiting. And, of course, noise is reduced, which often increases the area of good reception.

As of August 1975, over 100 US stations have purchased the Dolby Model 324 or

334 FM Broadcast Encoder. (The encoder accurately compresses the signal in accordance with the Dolby B-Type characteristics and changes the effective transmission time-constant to 25 microseconds. At the same time, the station eliminates any high frequency limiting required previously).

Akron OH	WAEZ	97.5	Cincinnati OH	WGUC	90.9	Edmond OK	KWHP	97.7	Los Angeles CA	KGBS	97.1	New York NY	WOXR	96.3	Seattle WA	KIXI	95.7
Albany NY	WHSB	106.5	Collegeville MN	KSJR	90.1	Fairmont NC	WFMO	100.9	Los Angeles CA	KIQQ	100.3	New York NY	WRFM	105.1	Skokie IL	WCLR	101.9
Allentown PA	WFMZ	100.7	Columbus GA	WEIZ	100.1	Flint MI	WGMZ	107.9	Los Angeles CA	KPFK	90.7	Normal IL	WGLT	91.7	St. George SC	WPWR	95.9
Alta Vista VA	WKDE	105.5	Columbus OH	WCOL	92.3	Fort Wayne IN	WMEF	97.3	Lancaster PA	WDAC	94.5	Opportunity WA	KZUN	96.1	St. Louis MO	KCFM	93.7
Arlington TX	KAMC	94.9	Columbus OH	WOSU	98.7	Fort Worth TX	KWXI	97.1	Lexington VA	WLUR	91.5	Pateron NJ	WPAT	93.1	Stevens Point WI	WSPT	97.9
Baltimore MD	WAMR	106.5	Dayton OH	WTUE	104.7	Fresno CA	KPHD	95.5	Louisville KY	WCNS	99.7	Philadelphia PA	WMMR	93.3	Sylvania OH	WXEZ	105.5
Birmingham MI	WHNE	94.7	Dallas TX	KCHU	90.9	Gainesville GA	WDUN	106.7	Louisville KY	WLRS	102.3	Portland ME	WDOS	97.9	Topeka KS	KTPK	106.9
Boston MA	WROR	98.5	Dallas TX	KTLC	100.3	Grand Rapids MI	WZZM	95.7	Madison WI	WYXE	92.1	Richmond VA	WEZS	103.7	Tuscaloosa AL	WUOA	95.7
Boston MA	WVBF	105.7	Dallas TX	KVIL	103.7	Hanover NH	WDOR	99.3	Maine FL	WAIA	97.3	Rochester NY	WCME	96.5	Utica NY	WOUR	96.9
Buffalo NY	WDCX	99.5	Dallas TX	KZEW	97.9	Hartford CT	WTIC	96.5	Manassas VA	WEZR	106.7	Rochester NY	WEZO	101.3	Washington DC	WAMU	88.5
Buffalo NY	WBEN	102.5	Denver CO	KBPI	105.9	Henrietta NY	WTR	89.7	Memphis TN	WKNO	91.1	Saline MI	WIOB	102.9	Washington DC	WASH	97.1
Carbondale IL	WSIU	91.9	Denver CO	KLZ	106.7	Houston TX	KILT	100.3	Miami FL	WAIA	97.3	Salt Lake City UT	KDAB	101.1	Washington DC	WGMS	107.3
Charlotte NC	WEZC	104.7	Detroit MI	WABX	99.5	Houston TX	KRLY	93.7	Minneapolis MN	KSJN	91.1	Salt Lake City UT	KSL	100.3	Washington DC	WHUR	96.3
Charlotte NC	WROQ	95.1	Detroit MI	WOMC	104.3	Indianapolis IN	WNAP	93.1	Morgantown WV	WAJR	101.9	San Antonio TX	KEXL	104.5	Washington DC	WMAL	107.3
Chicago IL	WFMT	98.7	Detroit MI	WJZZ	105.9	Jackson MS	WSLI	96.3	New Orleans LA	WEZB	97.1	San Diego CA	KGB	101.5	Wilkes-Barre PA	WYZZ	92.9
Chicago IL	WLOO	100.3	Detroit MI	WMUZ	103.5	Kettering OH	WVUD	99.9	New Orleans LA	WNOW	101.1	San Francisco CA	KABL	98.1	Youngstown OH	WYSU	88.5
Cincinnati OH	WEBN	102.7	Detroit MI	WQRS	105.1	Los Angeles CA	KBIG	104.3	New York NY	WNEW	102.7	Seattle WA	KIRO	100.7			

As you can hear for yourself, a Dolby FM signal is compatible. In fact, most people find it a better signal even when received on their normal equipment without Dolby decoding.

However, you may be the kind of person who likes to take advantage of every opportunity for improvement. If you use Dolby circuitry during reception, you can bring the signal even closer to the quality of the original source material.

Naturally, the noise is reduced. But that's not all. Dolby compression is standardized, recoverable compression. By using Dolby encoding instead of the conventional high frequency limiting normally required during transmission, the station gives the listener at home the opportunity of recovering the full frequency range and dynamics of the signal.

If these prospects excite you, we think you will soon be wanting to check out the new generation of receivers with built-in Dolby circuitry.* Some Dolby licensees are already producing their new models, and others have new designs in the pipeline.

Dolby FM is an improvement we think you will appreciate. **And it's happening.**

*If you enjoy doing your own hook-ups, you can use an add-on Dolby unit, aided by a simple circuit to change your receiver time-constant to 25 microseconds.



Dolby Laboratories Inc

'Dolby' and the double-D symbol are trade marks of Dolby Laboratories Inc.

1133 Avenue of the Americas
New York NY 10036
Telephone (212) 489-6652
Telex 125797
Cables Dolbylabs New York

346 Clapham Road
London SW9
Telephone 01-720 1111
Telex 919109
Cables Dolbylabs London

Three Compacts

Bozak

quality sound for modest-sized rooms

It's a fact of physics that the larger the loudspeaker enclosure, the more realistic the bass reproduction.

Yet, room size and amplifier power limitations sometimes dictate the use of smaller-than-optimum loudspeakers. For these applications, Bozak, whose reputation for providing the truest possible bass spans more than a quarter century, has developed three compact speaker systems, each of which offers fidelity in bass response far beyond what might be expected from an enclosure of its size.

Rhapsody



The ideal loudspeaker for a medium-size room, the Rhapsody is a three-way system providing a full spectrum of true sound from natural bass through clear midtones to the highest shrill-free treble. Waterproof finish lets the Rhapsody double as an end table without fear of spotting. A three-position brightness control permits matching the speaker system to room acoustics. Sculptured foam grille enhances the true walnut surfaces.

Tempo III

Bozak's smallest three-way system has been acoustically designed to reproduce currently popular music with its emphasized bass. A ducted enclosure helps bring discotheque sound into the living room. Cabinet finish is waterproof, so there's no fear of ordinary liquids marring the surface. Grille is of modern acoustical fabric. Available in free-standing or bookshelf models.



Sonora



Although the smallest Bozak speaker, the Sonora caused *Popular Science* magazine to say "you can get really good sound from an under-\$100 speaker . . . While no speaker is perfect in reproducing lows, it was exactly this solid, rich sound that made the . . . Bozak speakers stand out." To which we add, the crystal clarity of its highs are equally important to the success of this finest of compact bookshelf speakers.

If you buy any compact speaker, regardless of your room size or budget, without first listening to the Bozak compacts, you'll be doing your music system an injustice. We'll gladly send you the names of dealers in your area where you can hear them for yourself.

Bozak

Bozak, Inc., Box 1166, Darien, Connecticut 06820

And what determines the product's prestige? Ah, such a question! Bach wasn't fired because music, even his complex music, was so greatly respected in the Lutheran church service that a hiring and firing became a pretty important occasion, and wasn't done in a hurry with no fanfare. That any congregation could sit through a new Bach Cantata every single Sunday, often in an unheated midwinter church, shows you where the musical product stood in general terms.

My idea here is simply to put our own most-heard audio music in perspective. We are at a very preliminary stage, in this particular musical craft. It has enormous importance because it is everywhere. But the craftsmen who produce the product don't yet swing very much weight. Ask one of them. If, one of these days, an ad composer gets to thinking he's Frank Sinatra or something and starts pushing the advertising people around, you'll know something big is on the way. If you ever hear about it. More likely he'll depart within seconds. He's no Bach.

What happens to a good functional product, when it is better than the necessities require, is that it tends to live on after the fact. Or to die, and then live again, resurrected. Pepsi-Cola (TM) hits the spot, how many ounces was a lot? That ad music lasted for ages. (It was based on an old English tune, "D'ya Ken John Peel.") Little signs like this are interesting beginnings. Good musical ideas, very functional but also maybe a bit beyond the product. Maybe you remember the music and forget the ad. Horrors—not that! But it can happen. There's a good new music ad trend now—music which keeps getting rewritten and updated, with a conscious retaining of the older and familiar musical ideas. Allegheny Air Lines, for you Easterners, has an update radio ad music that has gone through numerous model changes over many years and still remains pleasingly recognizable. I enjoy it. Really well done, nicely paced, rhythmized, orchestrated, and *treated with respect*, as though the music itself were as important as the words that sell. It is! It can be.

And so I think it absolutely possible that some day commercial music composed as an aid to advertising may end up in the "imperishable" category—classical. Great Music! Art! That is, if we can keep the audio engineers from *killing the very sound of music* via their gadgetry. Which will be the minus side of my thoughts, next time.



II'nd only to the III.



The new Shure M95ED phono cartridge combines an ultra-flat 20-20,000 Hz frequency response and extraordinary trackability with an utterly affordable price tag! To achieve this remarkable feat, the same hi-fi engineering team that perfected the incomparable Shure V-15 Type III cartridge spent five years developing a revolutionary all-new interior pole piece structure for reducing magnetic losses. The trackability of the M95ED is second only to the Shure V-15 Type III. In fact, it is the new "Number 2" cartridge in *all* respects and surpasses much higher priced units that were considered "state of the art" only a few years ago. Where a temporary austerity budget is a pressing and practical consideration, the M95ED can deliver more performance per dollar than anything you've heard to date.

Shure Brothers Inc.
222 Hartrey Ave., Evanston, IL 60204
In Canada: A. C. Simmonds & Sons Limited

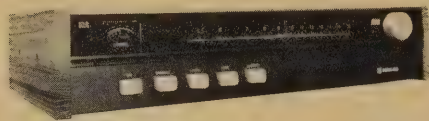


Manufacturers of high fidelity components, microphones, sound systems and related circuitry.

Check No. 62 on Reader Service Card

You've never heard it so good-on AM!

From McKay Dymek, a tuner and antenna to make AM broadcasts more like the FM sound you're used to.



AM5 High Fidelity Tuner.

A professional quality solid state AM tuner in attractive teak and black cabinet. Check these features:

Solid state — FET-IC construction throughout

Low distortion — less than 1 %

Notch filter — typical AM "noise and whistles" 90% eliminated

Ceramic filters — for remarkable selectivity

4 μ v sensitivity — pulls in the distant stations

Factory direct, only \$295.00 for **audio quality comparable to FM.**

DA3

AM Antenna

Shielded ferrite loop antenna with solid state preamp, plus tuning and sensitivity controls. Connecting the DA3 is like adding an extra tuned RF stage with variable gain to the front end of your AM section. See what it can do:

Overcomes the two most common AM reception problems: interference from TV and electrical sources and strong local stations "hiding" weaker distant stations close on the dial.

Improves inherent long range capabilities of AM — programs listenable from hundreds of miles.

Increases signal strength 4 to 8 times — (over a 40' long wire antenna) sharpens typical AM performance.

DA3 AM Antenna \$155.00

Factory direct — Money back guarantee — Rental Plan available, Master Charge and BankAmericard accepted. Complete specs and performance details available. For more information write or call toll free:

Nationwide 800/854-7769

California 800/472-7782



McKay Dymek Company
675 N. Park Ave. Dept. A10
P.O. Box 2100
Pomona, CA 91766

Check No. 39 on Reader Service Card

Behind The Scenes

Bert Whyte

IF YOU belong to that select breed known as "ardent audiophile," sooner or later you'll acquire an open-reel tape recorder. As a quick look in *Audio's* annual directory issue will confirm, there is a mind-boggling selection of tape recorders available in a wide range of price categories. No matter what tape recorder you eventually choose, two things are certain. One is that few pieces of audio gear can give you as much pleasure as a good tape machine; the other is that you will have acquired what is probably the most technically sophisticated unit in your hi-fi system, an interfacing of mechanical and electronic parts of bewildering complexity.

It is perfectly true that even a "Danny Dullskull" can lay hands upon this technological marvel and by "following the simple directions from A to Z," come up with a high-quality tape recording. Manufacturers like to build in this sort of capability in their products. However, this ease of use is generally confined to the most simple functions and the most elemental recording tasks. There is a certain "mystique" to tape recorders, and even our "ardent audiophile" is a bit intimidated in his first confrontation with the formidable jargon of magnetic recording ... coercivity, remanence, bias, equalization, azimuth, zenith, headroom, tape saturation, flux densities, modulation noise, tape skew, scrape flutter, and on and on. Of course, you don't have to know about these things to make a good tape recording, but the very complexity of the subject is part of its attraction and a challenge for the doughty audiophile.

Having said this, I must point out that much of this information is hard to come by, so good intentions aside, most audiophiles' technical abilities in magnetic recording are rather limited. There is another factor operating too, which is responsible for many audiophiles being very apprehensive about

making even some of the most basic adjustments to their recorders. This can be summed up as the manufacturers' exhortations in their instruction manuals to "keep your cotton pickin' hands off of things you don't understand!" This followed inevitably by ... "refer to authorized service station for adjustments to thus and so, etc., etc."

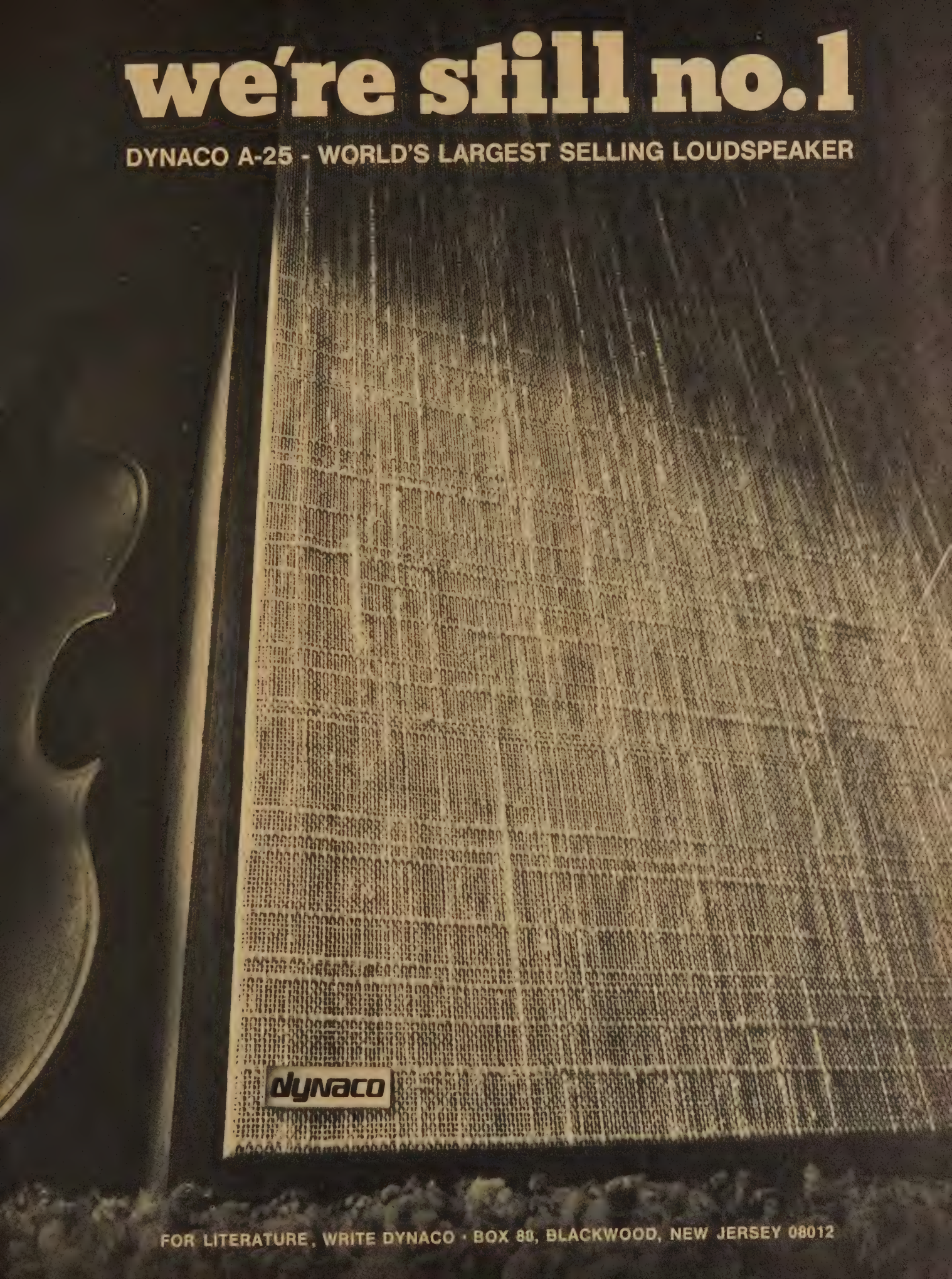
Okay, we'll agree that these warnings have their point. You can bet many a tape recorder has been rendered *hors de combat* by the inexpert diddlings of their technically incompetent owners. On the other hand, those warnings have spooked even the more knowledgeable audiophiles to the extent that recorders which are in almost daily use go for months ... even years ... with little or no check-out and maintenance other than routine cleaning and demagnetization.

The owner of one of these recorders may hear some sonic aberration ... subtle perhaps ... but persistent and annoying. He may suspect that his machine's high frequency response is attenuated. In monitor checking between source and copy, there is a perceptible diminution of quality in the copy. Frustrated audiophiles ask if there are some ways to check on certain basic performance parameters of their tape recorders without having extensive (and expensive) test instrumentation and a knowledge of how to conduct these tests.

The answer is that a "sonic stethoscope" has been available for many years in the form of *precision test tapes*. You will note I emphasize *precision* and I don't mean the cheap gimcrack test tapes found in the tape accessory department of many retailers. Until fairly recently, Ampex was the principal source of the high-quality test tapes used throughout the professional recording industry. Now we also have professional test tapes from Taber Manufacturing and Engineering Co., 2081 Edison Ave.,

we're still no.1

DYNACO A-25 - WORLD'S LARGEST SELLING LOUDSPEAKER



dynaco

FOR LITERATURE, WRITE DYNACO • BOX 80, BLACKWOOD, NEW JERSEY 08012

SIBLING RIVALRY



Which one you like best depends on what you want to do with it.

Our Ultra Dynamic cassette can play back every note your system can record.

Or, for a few Hertz less and a lot of cents less, you can have quality almost as good in our Low Noise cassettes. (It's so good, many people compare it to our competitors' top-line products.)

However, both cassettes feature Maxell "tensitized" tape strength to pre-

vent stretching. Both Maxell cassettes feature the strongest shells made to prevent warping and popping. Both cassettes come in 120 minute lengths that really work.

So, while our two cassettes have a few differences, they're all in your favor.

Maxell Corporation of America, Moonachie, New Jersey 07074. Also available in Canada.

maxell®

For professional recordings
at home.

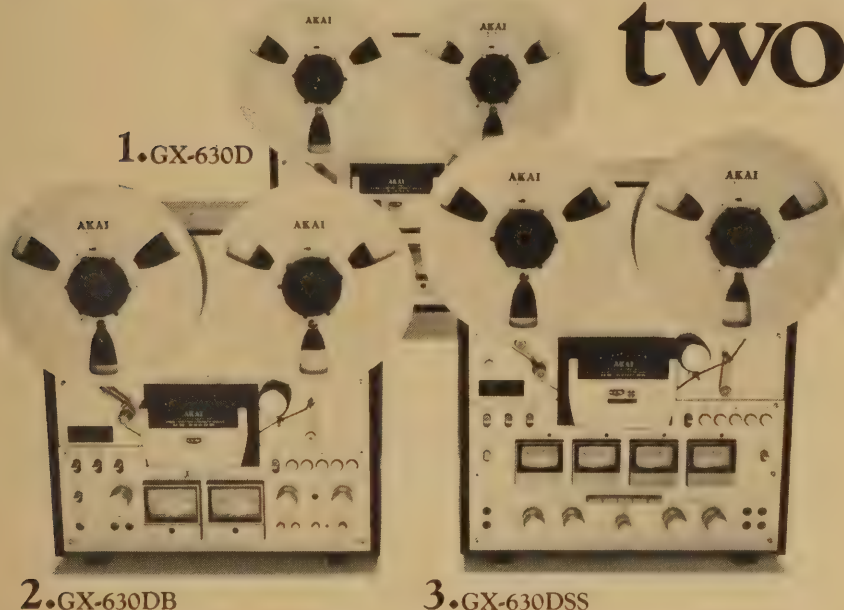


San Leandro, California 94577 and the test tapes I happen to prefer, those of the Magnetic Reference Laboratory, 999 Commercial Street, Palo Alto, California 94303. The MRL tapes get the nod from me for a number of reasons. For one thing they have a very comprehensive variety of test tapes available in virtually every tape-head configuration. Plus they have several unique test tapes containing material that is not available elsewhere. Lastly, MRL is under the direction of John (Jay) McKnight, formerly of Ampex and now dubbed (that's a pun!) the "Wizard of Watergate" since his impeccable technical credentials as one of the foremost experts on magnetic recording in this country earned him a place on the technical committee analyzing those infamous tapes.

Our "Sonic Stethoscope" is an MRL alignment tape. For the usual audiophile-type quarter- or half-track open-reel recorder using quarter-inch tape, you obtain a full-track test tape which has been recorded at the highest speed of your machine, 7½ or 15 ips, for example. Why full track? For one thing it simplifies manufacture and keeps costs down, plus you can use the tape on a variety of track configurations ... instead of having to buy the specific tape for the specific track format. From a technical standpoint, any height error of the reproducing head does not introduce gain setting or frequency response errors. Now *without disturbing a single adjustment* in your tape head assembly, you can playback this tape and, with some simple rules of interpretation, it will give you an accurate indication of the total frequency response of your recorder. With a simple manipulation in the tape head assembly, this same test tape will enable you to check the azimuth of your reproduce head. (Azimuth in this context is the degree of perpendicularity of the tape head gap to the direction of tape travel. Ideally, the gap is perfectly vertical. Deviations from this condition will result in attenuation of the high frequency response.)

Let's take a closer look at the make-up of a typical alignment tape. A reference fluxivity tone at 1 kHz is recorded at the beginning and end of every test tape. This reference fluxivity is a value for the magnitude of the magnetic signal and is expressed as nanowebers per meter of track width. Different values of reference fluxivity apply to various recording tapes. Typically, 200 nWb/m is the reference fluxivity for general-purpose tape used in home recording,

One good thing leads to two others.



Once you've got something as good as the Akai GX-630D stereo tape deck, it starts you thinking.

Why stop here? Why not make a second one, with Dolby*? So we did.

Introducing the Akai GX-630DB — it has everything the GX-630D has, plus the Dolby* noise reduction system.

Well, that only started us thinking again. Why not a third, with quad?

Introducing the Akai GX-630DSS — it, too, has everything the GX-630D has, but it's got it in 4-channel sound with quadra-sync.

As for introducing a fourth, we're thinking about it.

GX-630D

3 glass and single crystal ferrite heads, 3 motors (1 AC Servo Capstan Motor), 2 speeds (3 3/4 and 7 1/2 ips), feather touch full logic function controls, mic/line mixing, dual monitoring, automatic stop, output level control, pitch control. Akai reel-to-reel systems from \$299.95. Akai America Ltd., 2139 E. Del Amo Blvd., Compton, Calif. 90220

*Trademark of Dolby Laboratories, Inc.

If you're going to get big, you gotta be good.
We're good.



whereas 250 nWb/m is the value for such tapes as 3M 206 or Ampex 406. In use, the 1-kHz reference fluxivity signal is used to set a standard zero VU on your VU meter. Once set, the playback gain control on your recorder is not touched during the playback of the test signals on the tape. Ideally, a recorder with a perfectly flat playback frequency response will not vary in gain at the reference fluxivity zero VU point. The reference fluxivity signal is also known as "operating level." On a 15-

ips test tape, all the signals are recorded at this operating level. On a 7½-ips tape, for technical reasons only the reference fluxivity signal is recorded at operating level, the other signals being recorded at minus 10VU. After the reference fluxivity signal, there is an 8-kHz signal for a coarse setting of azimuth, followed by a 16-kHz signal for fine setting of azimuth.

How do you set the azimuth of your machine's reproduce head? Well, friends, here is where some tape recorder manufacturers may get a bit miffed with me. Almost without exception, on a typical audiophile recorder once the manufacturer has set the azimuth, the azimuth adjustment screw is sealed with some variety of glue. Now this is all right to a degree, but head wear and other factors can conspire to put the gap out of alignment. Of course, enough head wear to cause a "grooving" or "lip-ping" of the head, and no alignment tape is going to help then because you need a new head! In any case, it is nice to know the actual setting of the azimuth, and any audiophile worth his salt will want to adjust the setting for optimum high-frequency response. Thus, after making absolutely certain which is the azimuth adjustment screw in your tape head assembly and using an appropriate tool (some units need an Allen wrench), boldly break the glop seal, and turn the screw to give you the maximum peak reading on your VU meter. If you should have a recorder that does not have a VU meter that reads playback signals, you will have to use an external VOM or VTVM. (Obviously, you would need a meter to read the other signals on the tape as well.)

Following the 16-kHz azimuth adjustment signal, the alignment tape has a series of discrete test frequencies at 31.5, 63, 125, 500, 1k, 2k, 4k, 8k, 10k, 12.5k, 16k, and 20k Hertz. The tape ends with a repeat of the 1-kHz reference fluxivity signal. Thus, the alignment tape can give you a quick checkout of your recorder's playback performance. I should mention that at the low frequencies of 31.5, 63, 125, and on up to 1kHz, there are elevated readings above the zero VU point because of what are known as "fringing effects" when a full-track tape is used on a multi-track head. Along with a calibration graph of the accuracy of the particular test tape you purchased, MRL furnishes a table of correction factors to subtract from the readings at the low frequencies.

What can you do if the alignment tape reveals that your recorder does

not have a flat playback frequency response? This is a problem of adjusting the equalization and unfortunately in the usual audiophile recorder, this circuitry is usually in the innards of the unit and generally beyond the ministrations of the average audiophile. So, in this case, friends, it is back to the manufacturer. Ironically, in the professional tape recorders, like my Ampex 440, all the equalization circuitry is on plug-in cards accessible from the front panel and subsequently very easy to adjust. The important advantages of using an alignment tape to check your playback response are that the method is quick, easy, and repeatable. It thus provides the knowledge required to put the recorder in perfect playback alignment so that any necessary recording adjustments can be undertaken.

MRL also makes a very clever "Difference Method" azimuth adjustment test tape. With this tape, one can check the azimuth of the reproduce head *without* actually changing any azimuth screw settings. On the tape, a medium frequency tone is alternately recorded at two azimuth angles symmetrically displaced from true azimuth. On playback the sequence is Tone A (at one angle) for 2 seconds, then a 0.1-second pause, the Tone B (at the other angle) for 2 seconds, then a 0.6-second pause. This is repeated throughout the length of the tape. When the reproduce azimuth is correctly set, the level output from tones A and B will be equal. In practice, if you obtain a reading within one dB of each other, the azimuth is close enough for practical purposes. Of course, if the two tones are further apart in level, then you must use the azimuth adjustment screw to make them equal.

For the advanced audiophile who has an oscilloscope with a triggered sweep, MRL has available a rapid frequency sweep test tape that sweeps all frequencies from 500 to 20,000 Hz and gives the appearance of a continuous display of all frequencies at once. An MRL film positive graticule is necessary for use with this tape. Placed over the face of the scope, it is available in 3-, 4-, and 5-in. sizes.

MRL has an interesting catalog, listing all their test tapes. For the tape recorder enthusiast, even the most basic alignment tape is invaluable. They're not cheap; \$30.00 for the 7½- or 15-ips quarter-inch tape, for example, but they are good investments, and given good care, as per the MRL instructions, these tapes will remain servicable for along time.

NEW SPIN & CLEANTM record washing system

- Most effective cleaning system
- Easy... Thorough... Safe
- Cleans 'em all... LP's, 45's, 78's
- Removes static... Leaves no residue
- No electricity... You Spin & Clean Records
- Special concentrated Record Wash solution
- Gentle plush scrubbing pads get deep into grooves... remove for easy cleaning
- Only \$19.95, suggested list price.

After years of research with all types of record cleaning gadgets, gizmos and gimmicks, Fidelitone came up with a simple, direct solution... the Record Washer! Now you can wash your records quickly and easily with this unique Spin & Clean system. Gets out dirt deep down in the record groove... gives you maximum performance from your old records. Comes complete with special cloth and enough Fidelitone Record Wash Concentrate to wash up to 1,000 records!



FIDELITONE

207 N. Woodwork Lane Palatine, IL 60067

THE TOUCH OF MAGIC
in Phonograph Needles, Cartridges,
Record Care, and Audio Accessories



Introducing one of the finest collections of stereo receivers in the world: the MX1580.

Power* of the Sony 7065. FM Sensitivity* of the Pioneer 838. Selectivity* of the Sherwood 7900A.
Capture ratio* of the Marantz 2270. Total Harmonic Distortion* of the JVC VR-5660.

With so many excellent AM/FM stereo receivers around these days, who needs another? So instead of making just "another," we collected the most significant specs and useful features of five of the best, and "combined" them in one: the MX1580.

Of course, some of these five receivers have features our one doesn't have (we think you can manage without two phono inputs).

But then, ours has features they don't have; features you *shouldn't* do without.

You pay for — and get — what you really need.

The MX1580 has exclusive ASNC, which automatically reduces the noise level on weak stereo stations without reducing separation on strong ones.

And special thermal protection for output transistors and the power transformer.

Plus lots more we were able to include and, at \$479.95,** save you a few bucks in the bargain.

How? It wasn't easy. But we had help.

The oldest new company in the business.

Although we're a completely separate group, we were able to draw on the resources of a company that's been a leader in the industry since 1915. So we could afford to wait until we had the MX1580 right.

And now it's so right, we insist that every single one be inspected twice before it's shipped. After all, we have one of the world's finest stereo collections to protect.

Features and Specs*

- Sensitive front-end with three dual gate MOSFET's and 4-gang tuning capacitor.
- Two 6-pole linear phase filters for improved selectivity and phase response.
- High gain IC quadrature FM detector.
- Switchable signal-strength/center-tuned meter.
- Phase lock loop IC circuit for FM stereo multiplex.
- Computer designed low pass audio filters for suppression of ultrasonic frequencies.

- OCL direct-coupled differential amplifier for extended frequency response and wide bandwidth.

Power 60 watts
per channel, min. RMS

Power Bandwidth
20Hz-20kHz

Total Harmonic
Distortion 0.5%

Load 8 ohms

IM distortion 0.8%

Frequency response . . 20Hz-25kHz

Usable sensitivity (IHF) 1.8uV

Selectivity (IHF) 75dB

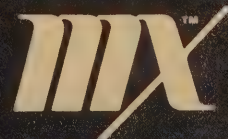
Capture ratio (IHF) 1.5dB

50dB signal to noise mono . . 2.5uV

Stereo separation @ 1kHz . . . 50dB

@ 10kHz . . 40dB

All specs subject to change without notice.
Specs of competitive receivers taken from manufacturers own published data sheets.
**Manufacturer's suggested retail price; optional with dealer.

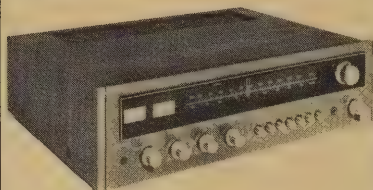


We're being heard from.

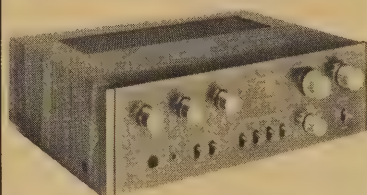
MX High Fidelity Components, Ft. Wayne, Indiana 46804

Check No. 36 on Reader Service Card

When you
hear the
incredible
sound . . .



when you
touch the
sensitive,
responsive
controls . . .



and when
you see
the beautiful
craftsman-
ship . . .



you'll want
to own one.

Onkyo offers a full line of highly rated stereo receivers, amplifiers and tuners; the world's 1st fully automatic 4-ch receiver; 2/way & 3/way speaker systems . . . all in a broad price range. See your dealer.

ONKYO

Onkyo Sales Section/Mitsubishi Int'l Corp.
25-19 43rd Ave. Long Island City, N.Y. 11101
935 Sivert Drive, Wood Dale, Ill. 60191

Check No. 41 on Reader Service Card

ADDENDA—Craig Model 3139

The Craig Corporation has brought to our attention an error in the testing set-up for their Model 3139 car stereo unit, which resulted in our publishing a power output figure MUCH too low for this unit in our July, 1975 article "Five Car Radios Tested." Briefly, the difficulty appears to have been in the ground at the signal input of the unit, a situation which would never occur during actual use of the receiver in an automobile.

Results of the retest gave a power output figure at 1 kHz of 10.86 watts per channel at 1 percent distortion; Craig rates the unit at 12 watts per channel at 5 percent distortion. A corrected table of test results is shown here.

Brand & Model		Becker Mexico	Craig 3139	J.I.L. 605	Panasonic CQ-999	Pioneer KP-301
IHF Sensitivity, μ V	mono	4	6	4	4	3
	stereo	50	8	10	7	3
50dB Quieting, μ V	mono	3	7	3	5	3
	stereo	50		35	30	30
Mono S/N ratio@1000 μ V, dB		62	67	61	66	67
Stereo S/N ratio@1000 μ V, dB		56	68	56	55	57
Mono THD, %		1.1	1.0	0.65	1.0	1.25
Stereo THD, %		1.4	2.5	1.4	0.85	2.4
Max Power/Ch., watts		1.75	10.86	2.0	2.0	1.0
Separation@1 kHz, dB		28	14	22	38	22
Tape transport		Cass.	8-tr.	Cass.	8-tr.	Cass.
AM Incl.?		Yes	No	Yes	Yes	No
Automatic tuning?		Yes	No	Yes	No	No
Preset pushbuttons?		No	Yes	No	Yes	No
Price (\$)		844.28	169.95	249.95	200 approx.	199.95

Thiele—Sage of Vented Speakers

The graphs for Figs. 2 and 3 were interchanged and are reprinted here correctly. The first paragraph under the sub-heading "Closing Remarks" contained an extraneous and misleading sentence, the penultimate one.

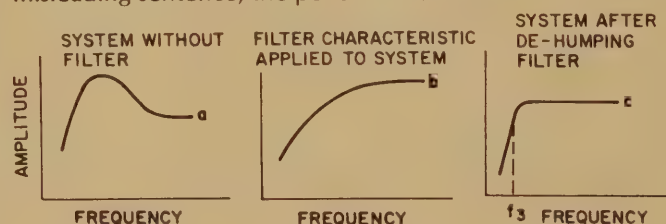


Fig. 2—Nature of response of alignments 10 through 14 before and after the addition of the required auxiliary filters.

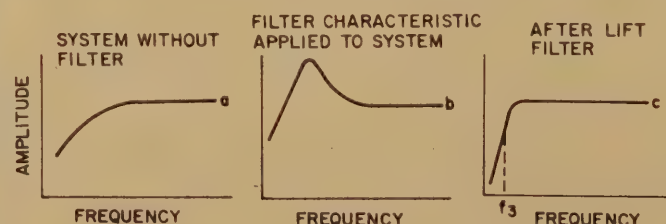


Fig. 3—Nature of response of alignments 15 through 19 before and after the addition of the required auxiliary filters.

Dear Editor:

Scott Not Part of EAD

Dear Sir:

In the August, 1975 issue of **Audio** you reported the death of Mr. Herman H. Scott. As part of your story on Mr. Scott you indicated that his firm was sold in 1972 to Eastern Air Devices.

This is to advise you that Eastern Air Devices, Inc. (now Electro Audio Dynamics, Inc.) never purchased H.H. Scott, Inc. although it had an option to do so which was not exercised. To the best of our knowledge, H.H. Scott, Inc. was sold to a group of European investors which had absolutely no connection with Eastern Air Devices and has been owned by that group for the past two or three years.

I would sincerely appreciate your correcting your story with respect to the ownership of H.H. Scott, Inc. at your earliest convenience.

Siegfried Susskind
President

Electro Audio Dynamics, Inc.
Great Neck, N.Y.

Car Radio Issue

Dear Sir:

I'm glad to see instrument tests on auto sound equipment, such as you had in the July issue. Let me add, however, that the Becker's variable separation is probably excellent for auto use — I find at the limits of stereo reception that my car radio is constantly switching from noisy, distorted stereo to clean mono and then back again. Gradual transitions would probably be much pleasanter.

One note on the directory section; complete as it was, it lacked data on such things as push-button and signal-seeking tuning; auto-reverse, fast-forward, and rewind tape motion, and other features most significant for car use.

Ivan Berger
Electronics & Photo Editor
Popular Mechanics
New York, N.Y.

Noise Filter

Dear Sir:

Thank you for publishing the construction article "Construct A Dynamic Noise Filter" (June '75). Mr. Strange's article was very clear and complete on how to build and operate the filter. I had no trouble at all in

obtaining the components or in constructing the unit. I hooked the unit up to my stereo system and I am very pleased with the operation. I hope you will make construction articles a monthly feature of your truly first-rate magazine.

Steven L. West
West Bend, WI.

"AS ORTOFON IMPLIES, THE VMS-20E AND M-15E SUPER CARTRIDGES HAVE VIRTUALLY IDENTICAL PERFORMANCE IN ALL RESPECTS. WE COULD HEAR NO DIFFERENCE BETWEEN THE TWO IN SIDE-BY-SIDE COMPARISONS."

Julian Hirsch, *Stereo Review*

The Ortofon VMS-20E is a new cartridge designed to offer essentially the same high order of performance as the now-famous M-15E Super, but to do so in a wider variety of tone arms—including those found on today's very best automatic turntables.

The difference between the two is best described by again quoting Julian Hirsch:

"The major difference between the two cartridges appears to be that the M-15E Super will play anything we

have seen on record without difficulty at 1 gram, while the VMS-20E might have to be operated at 1.5 grams in the most severe cases. We would still opt for 1-gram operation, assuming the tone arm is capable of it."

The VMS-20E employs Ortofon's unique (and patented) Variable Magnetic Shunt design, which frees the stylus from the need to drive either coils or magnet directly and allows a combination of very low dynamic mass (0.5 milligram) and very high compliance (40×10^{-6} cm/dyne in the horizontal plane in the VMS-20E).

It is a product of the meticulous manufacture and testing for which Ortofon (a maker of professional recording equipment for more than fifty years) is known throughout the world.

At \$65, the Ortofon VMS-20E is probably the least expensive way to make a major audible improvement in a good stereo system.

For more information, please write us at the address below.



ortofon , 9 EAST 38TH STREET, NEW YORK 10016



Build an Audio Generator

M. J. Salvati

THIS ARTICLE details the construction and operation of a battery-powered audio oscillator (see Fig. 1). The output of this oscillator is a low-distortion sine wave at each of six switch-selected frequencies. Full specifications are given in Table I. This oscillator will be useful to the engineer, the serviceman, and the hobbyist. Typical applications include checking frequency response, sensitivity, speaker phasing, tone controls, filters, etc. (Editor's Note: While this project

will not be particularly difficult for the advanced construction enthusiast, the beginner should be warned that an oscilloscope and a.c. voltmeter are required for adjustment, some parts will not be very easy to obtain, and several sources may have to be checked. Actual construction should not be very tough, however.)

Theory of Operation

The circuit is essentially a Wein-bridge oscillator with an FET controlling the gain of the circuit. Output signal appearing at pin 6 of IC1 is rectified by diode D1 to produce a negative d.c. voltage across resistor R14. This voltage is well filtered by capacitor C4 (and sometimes C5 or C6) and applied to the gate of FET Q1. The channel resistance of the

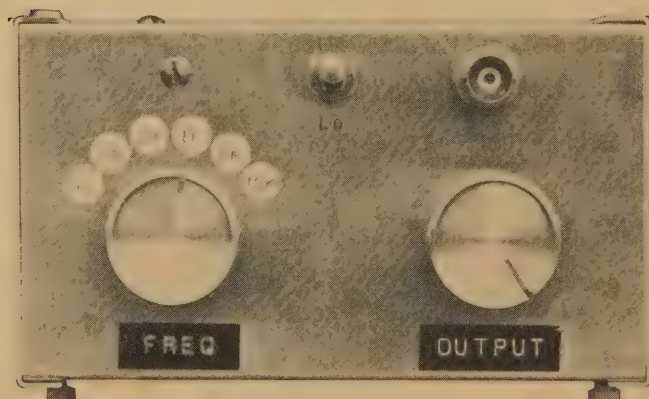


Fig. 1—Top of oscillator. Author's prototype uses BNC output jack instead of phono jack.

Table 1—Specifications

Frequencies	: 50, 100, 200 Hz; 1, 5, 10 kHz
Frequency accuracy	: $\pm 2\%$
Frequency response	: ± 0.2 dB
Output level (HI)	: 30 mV - 3 V rms into 10 KOhms or higher
Output level (LO)	: 0.3 mV - 30 mV rms into 100 ohms or higher
Total harmonic distortion	: less than 0.2% at any frequency
Power requirement	: Two 9 V batteries

TWICE AGAIN, HISTORY REPEATS ITSELF.

Carrying on the innovative tradition of our almost
ninety year involvement in music,
Yamaha announces a double breakthrough in all-FET technology.

Yamaha's C-1.

At \$1800, you've never seen a preamplifier like this before.

It's so different we call it the Master Control Center. You'll call it well worth waiting for.

From input to output, it's the first to use advanced FET's exclusively throughout the signal path.

Yamaha's C-1 is made for perfectionists who appreciate the superb clear tonality and exceedingly low distortion that only FET's can bring.

For advanced audiophiles who want the complete control over literally thousands of audio variables that only the most advanced circuits and features can offer.

A built-in oscillator.

Consider the C-1's unique built-in oscillator with level control, a professional test instrument that's usually found only in sophisticated audio labs.

By generating both random "pink" noise as well as the four most useful test tones (70 Hz, 333 Hz, 1 kHz and 10 kHz), the C-1's oscillator can be put to a variety of tasks:

Determining the precise phono impedance loading, checking the frequency response of speakers, A-B speaker comparisons, setting up a tape deck, balancing the output level of an entire system, and balancing room acoustics. You'll discover more and more uses as you go along.

(A word of caution: because the C-1's oscillator can be used externally, all your audiophile friends will want to use it to test their own components.)

Where most other manufacturers use a negative feedback design in their phono equalizer amplifiers, Yamaha specified the more sophisticated passive interstage equalizer (CR-type). The results were worth it:

Greater stability, lower distortion, superior tonality.

In our all-out effort to reduce noise at all preamp output levels (not just at

maximum output), the C-1 features a unique four-gang volume control that simultaneously adjusts inputs and outputs.

You're totally in control.

With the C-1's selectable equalization controls for presence and acoustic balance, you enjoy the equivalent of a separate equalizer. For those occasions when you don't want to use equalization controls, the C-1's special circuitry lets you bypass them completely.

Another unique feature that sets the Yamaha C-1 Master Control Center apart from other so-called state-of-the-art preamplifiers:

Six-position selectable phono impedance that allows your cartridge to be precisely loaded for optimum high frequency performance.

The Yamaha C-1's absolute control over sound also includes a pair of extra wide-range (-50 db to +6 db) peak reading meters. Electronic damping provides both faster peak readings and slower decay, assuring precise monitoring. You can also use the C-1's meters to monitor any external component that doesn't have meters.

Writing in *Audio* about our unique metering system, Bascom H. King stated:

"...by far the most accurate and meaningful of any meter set-up seen thus far"

Individual level controls let you balance the input from all signal sources, except the tuner. (Yamaha's companion tuner, the CT-7000, has its own variable output level adjustment.) So the volume level stays the same when you switch, for example, from tape to phono, tuner to aux, etc.

And there's more.

Enough that once you hear the Yamaha C-1, you'll never be satisfied with another preamplifier again.

Yamaha's B-1.

At \$1600, it's already redefined state-of-the-art amplifier performance in a lot of people's minds. Yours might be next.

Revolutionary Vertical-FET design produces a completely different kind of sound. Clean, open and transparent. With a richness that goes beyond the best vacuum tube amplifiers.

And, up to now, unavailable.

Worth the wait.

As late as a few years ago, there existed only two types of transistors: bipolar and horizontal FET. Each operated in a completely different manner.

The bipolar device uses input current to control output current. On the other hand, the horizontal FET uses input *voltage* to control output current—a more suitable audio technique that's quite similar to vacuum triode tube design. (Both use input voltage to control output current; both have sharp cut-off characteristics which eliminate high-order harmonics and notch distortion.)

Only there was a small problem.

Because current passage was restricted to a single path, the horizontal FET didn't produce enough power to be used in the output stages of a power amplifier.

Then, in 1971, Prof. Nishizawa of Tohoku University drastically changed the FET's internal structure. The shape of the voltage-controlled constriction was altered to let the current take an almost infinite number of paths.

And so, the Vertical-FET was born.

During the past three years, working exclusively with Prof. Nishizawa, Yamaha's engineers have brought the Vertical-FET to the forefront of audio technology, where it serves as both driving and output devices in our new B-1 amplifier.

The B-1's rated 150 watts per chan-

nel (20 Hz to 20 kHz, less than 0.1% THD) are produced by only two Vertical-FET output devices per channel.

Compare that with the minimum of six to eight output devices per channel found on most other amps!

Yamaha knows that fewer output devices minimize the distortion caused by out-of-balance output devices during transistor switching cycles. And maximize tonality.

People are talking.

Here's what Julian Hirsch of *Stereo Review* had to say about the power-handling capacity of Yamaha's new Vertical-FET:

"Each of the FET's is about the size of an ordinary power transistor, but it can dissipate 300 watts!"

Audio's Bascom H. King observed that the B-1's power output at visual onset of clipping for an 8-ohm load was 220 watts—46% over spec!

So you can see that our 8-ohm rating of 150 watts is quite conservative indeed!

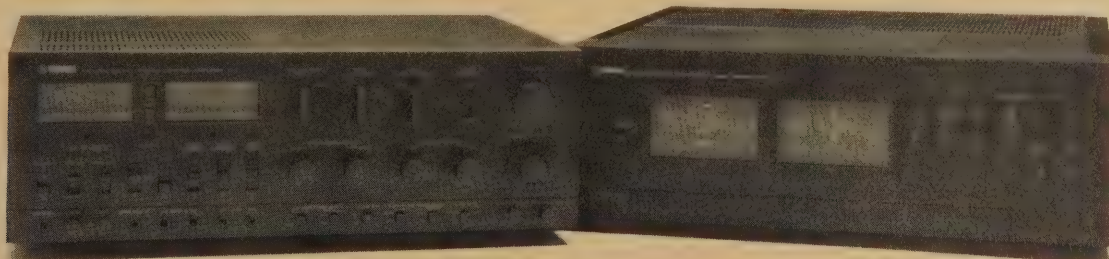
Because the B-1 is used as a reference amp by many of our dealers, we supply an optional control unit that can A-B up to five pair of speakers and balance them for efficiency at the head amp. Without the insertion of T-pads that degrade low-end response by decreasing damping characteristics.

It's called the UC-1. It costs \$250. And you don't have to be a Yamaha audio dealer to own one.

Besides speaker switching, the UC-1's extra wide-range peak delay meters, with faster peak and slower decay like those on the C-1 (but calibrated in both dB's and watts of power output), offer an extremely precise monitoring capability to your system.

Yamaha's C-1 and B-1, \$3650 the pair, with the UC-1 control unit.

After you hear them together, you'll never be satisfied with anything less.



International Corp., P.O. Box 6600, Buena Park, Calif. 90620

Check No. 74 on Reader Service Card

FET forms part of the resistive feedback divider (R7 and R8) from the op amp's output to its inverting input. The FET can therefore adjust the feedback divider to maintain oscillation at a non-distorting level according to the magnitude of the rectified feedback voltage. This action also keeps the output amplitude relatively constant from one frequency to another despite differences in the match between resistor pairs R1 - R6. For instance, if the output amplitude starts to get too high, the negative d.c. voltage at the gate of Q1 increases. This increases the channel resistance of the FET, thereby increasing the total resistance from pin 2 of IC1 to ground. This decreases the gain of IC1 and reduces its output amplitude.

The low circuit distortion is due to the FET's channel resistance being only a small portion of the total resistance from pin 2 to ground. However, the changes in channel resistance produced by the a.g.c. voltage at Q1's gate are big enough to perform the control function.

Another factor involved in achieving low distortion is adequately filtering the rectified output voltage used to control Q1. The time constant of resistor R14 and its parallel capacitor(s) must be very long compared to the period of oscillation. Capacitor C4 is adequate for the higher frequencies, but additional capacitance (C5 or C6) must be added for the lower frequencies. Large capacitance is not used at the higher frequencies to avoid unnecessarily long settling times.

The frequency of oscillation is determined by capacitor pair C1 and resistor pairs R1 - R6, according to the standard Wein bridge formula

$$f = \frac{1}{6.28 RC}$$

Only one set of precision capacitors is needed because the input bias current of the N5556 op amp is so low that several decades of resistance can be used to produce the several-decade frequency span.

IC 2 is connected as a unity-gain buffer that acts as an output driver for low-impedance loads. Resistor R12 builds up the output impedance of the device to near the 600-ohm impedance standard. Resistor R13 and switch S3 provide a "quick-and-dirty" method of achieving 40 dB attenuation of the output signal. If it is important to maintain 600-ohms output impedance at all output levels, the attenuator described in *Modifications* can be used instead.

Construction Notes

As far as layout is concerned, nothing is especially critical. The general arrangement of parts shown in Fig. 3 yields an easy-to-wire device. The only caution is to be sure your circuit board will fit into the space available in the case. If you have little experience with miniaturization, build the circuit board first and then see how big an aluminum case is needed. Further details on the circuit board are given below.

Sources recently listing IC1, IC2, and Q1 include Ancrona Corp., P.O. Box 2208A, Culver City, Calif. 90230; James, P.O. Box 822A, Belmont, Calif. 94002; New-Tone Electronics, P.O. Box 1738AM, Bloomfield, N.J. 07003, and Solid State Systems, P.O. Box 617A, Columbia, Mo. 65201.

Circuit Board The components covered in tone on the schematic diagram are to be mounted on the circuit board. Use No. 22 solid wire to make the connections from circuit board to chassis-mounted parts; the short stiff wire leads make the circuit board self supporting.

Perforated board or printed circuit techniques can be used for the circuit board, although I recommend Veroboard® by Vero Electronics. The metallized grid pattern accepts DIP IC's directly and permits incredibly-dense packaging.

FET For lowest distortion, Q1 should have a moderately-high pinchoff voltage (around 3 volts). This is available from a 2N3819 type FET with an I_{DSS} of 8-10 mA.

Frequency-Determining Resistors The absolute value of the frequency-determining resistors (pairs R1 - R6) determines the frequency of oscillation along with the absolute value of capacitor pair C1. However, the relative value, or

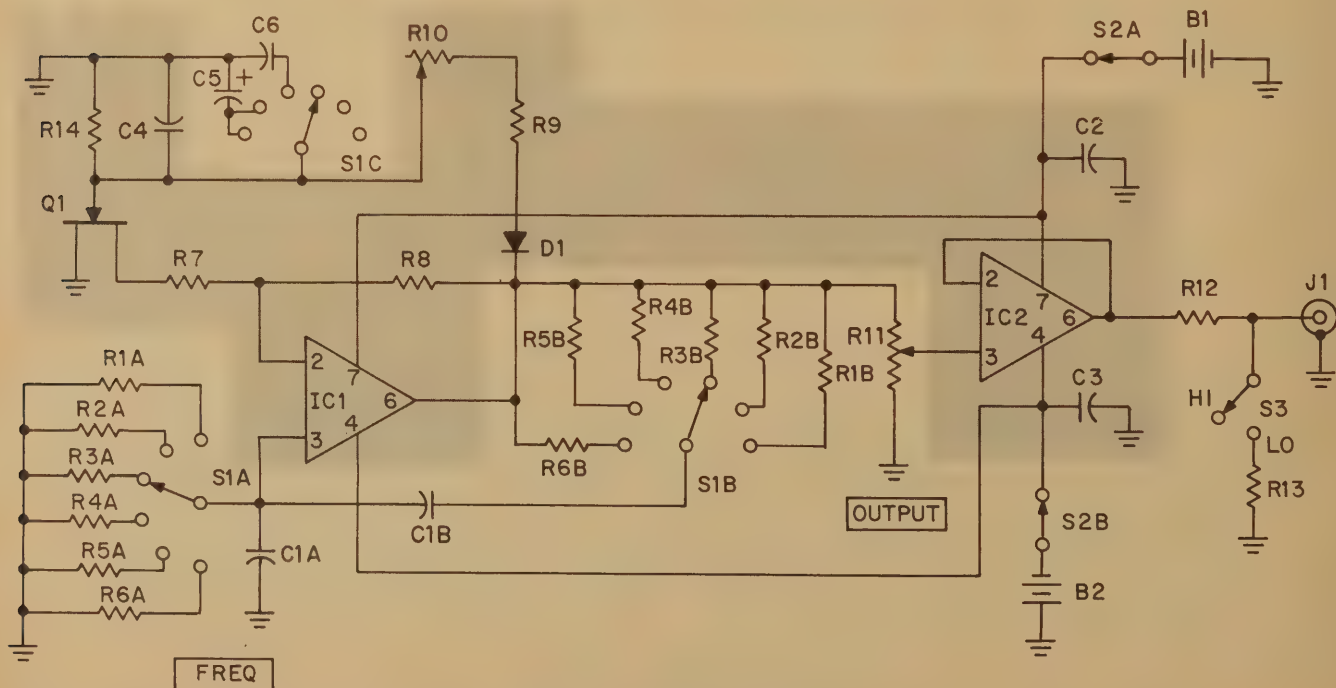


Fig. 2—Schematic diagram. Parts covered with tone are on circuit board.

While everyone is still trying to make V-FETS at any price, we now make them at a lower price.



When Sony introduced the first amplifiers with vertical field-effect transistors last year, the reactions were nothing short of incredible.

Consumers wrote in asking where they could hear the equipment. Audiophiles demanded to know where they could buy it. And our competitors wanted to know how they could make it.

In fact, the only problem was that more people couldn't afford the \$1300 price.

So, we at Sony decided to do something about it. And what we've come up with is our new \$400 V-FET integrated amplifier, the TA-4650. The TA-4650 is quite an advanced little piece of equipment. Because the V-FET isn't just another combination of gadgets, or a souped-up version of the same old thing. It's a completely new device that combines the good points of both bi-polar transistors and triode vacuum tubes. Without suffering the drawbacks of either. Because it's made with V-FETS, the TA-4650 gives you a new level of highly defined triode sound; along with the efficiency and stability found only in solid state devices. The TA-4650 delivers 30 watts per channel, minimum RMS at 8 ohms, 20Hz-20kHz with no more than 0.1% total harmonic distortion.

It has a direct coupled power amplifier stage. As well as direct coupled FET amplifiers in the tone control and buffer stages.

Its bass and treble controls have a turnover frequency selector that starts at 250Hz/500Hz for bass and 2.5kHz/5kHz for treble.

Its volume control is equipped with a switch for 20dB muting. And it has a level control memory device so volume can be set at any predetermined point.

But as good as our new V-FET amplifier is, we're just as proud of the components we make to go along with it.

Our ST-4950 AM/FM stereo tuner, for example, has a MOS FET front end, uni-phase solid state filters and IC's in IF stages. This allows an FM capture ratio of only 1.0dB, selectivity of 80dB and an S/N ratio of 70dB. The ST-4950 also has a phase-locked loop

(PLL) MPX section. Which means you get excellent stereo separation and low distortion.

Of course, if you're going around looking for a turntable, by all means take a look at our PS-4750 (cartridge sold separately).

It has a direct drive servo motor with a wow and flutter rating of only .03%.

Its base and platter are made from molded compound instead of metal, so resonance has been greatly reduced. It also has air-damped cushions, which compensate for warpage in records (again reducing resonance). The end result is a much cleaner sound.



It's no accident that Sony makes the world's first commercially available V-FET equipment. Or that we have matching components good enough to complete your system.

You see, we've got more solid state audio experience than anyone else. We've been at it for twenty years. For proof just stop by your Sony dealer. And use your ears.

*TA-8650: 80 watts per channel, min. RMS @ 8 ohms, 20Hz-20kHz, with no more than 0.1% total harmonic distortion.

SONY®

©1975 Sony Corp. of America. Sony, 9 W. 57 St., N.Y., N.Y. 10019. SONY is a trademark of Sony Corp.

Check No. 65 on Reader Service Card

match between the two resistors of each pair, affects the circuit's oscillatory activity, so each pair must be closely matched to produce the same output amplitude at each frequency. The closer the resistor pairs are matched, the less demand there is on the a.g.c. circuit to maintain output flatness. This allows the circuit to be optimized for low distortion.

The match between the resistor pairs can be achieved either of two ways. One is easy but expensive, the other is harder but cheap. First, you can purchase 1% tolerance resistors of the values specified in the Parts List. Second, you

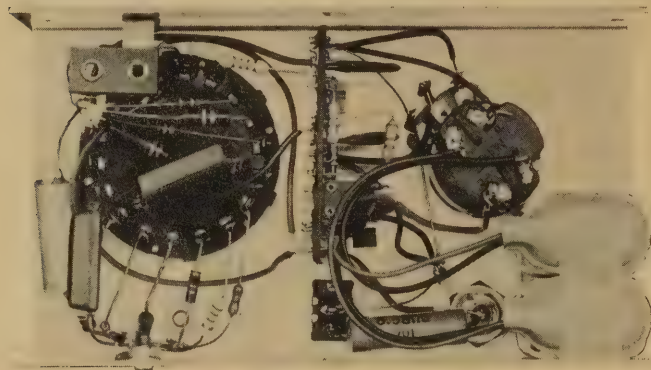


Fig. 3—Interior view. Circuit board is seen mounted edgewise between *FREQ* switch at left at *OUTPUT* pot at right. Batteries are taped in place at lower right corner of case.

Table 2—Parts List

Ref.	Description	Suggested Commercial Part
IC1, IC2	Signetics N5556 op amp*	
Q1	2N3819 FET (Vp greater than 2.5v)*	
D1	1N914, 1N4148, etc. high-frequency silicon diode	
J1	RCA phono jack	Switchcraft 3501FR
B1, B2	9V transistor radio battery	
S1	6-position, 3-pole rotary switch, shorting contacts	Mallory 3163J
S3	SPST slide or toggle switch	
C1A, C1B	5490 pF 1% mica capacitor	
C2, C3	0.05 μ F 25V disc-ceramic capacitor	
C4	0.1 μ F 25V mylar or ceramic capacitor	
C5	2.2 μ F 16V electrolytic capacitor	
C6	0.47 μ F 25V mylar capacitor	
R1A, R1B	2870 1% 1/4W film resistor*	Dale CMF-65
R2A, R2B	5760 1% 1/4W film resistor*	Dale CMF-65
R3A, R3B	28.7K 1% 1/4W film resistor*	Dale CMF-65
R4A, R4B	1% 1/4W film resistor*	Dale CMF-65
R5A, R5B	287K 1% 1/4W film resistor*	Dale CMF-65
R6A, R6B	576K 1% 1/4W film resistor*	Dale CMF-65
R7	23.7K 1% 1/4W film resistor*	Dale CMF-65
R8	48.7K 1% 1/4W film resistor	Dale CMF-65
R9	51K 5% 1/4W carbon resistor	
R10	50K trimmer pot	Beckman 91
R11/S2	50K log-taper pot with DPST switch	Centralab B32/KR2
R12	620 ohm 5% 1/4W carbon resistor	
R13	6.2 ohm 5% 1/4W carbon resistor	
R14	470K 10% 1/4W carbon resistor	
—	5 1/4 x 3 x 2 aluminum case	
—	knobs with index mark (2 req.)	
—	9V battery connectors (2 req.)	

*See text, *Construction Notes*.

can measure a number of 5% tolerance resistors of the nearest standard value(s) and select from them the pair that are the closest match (and hopefully, near the specified value). A digital ohmmeter is recommended for this task, although a standard (analog) ohmmeter with mirrored scale can be used if you are especially good at meter reading. If frequency accuracy is important, a digital ohmmeter must be used.

If matches within 1% are not obtainable, or you are unlucky enough to buy 1% resistors that are off in opposite directions, always use the lowest-value resistor of the pair as the one connected to switch section S1A.

Feedback Resistors. The proper ratio between resistors R7 and R8 for low distortion and reliable operation is quite critical. The closeness of the match between capacitor pair C1 and resistor pairs R1 - R6 affects the amplifier gain, hence the proper R7:R8 ratio. The values given in the Parts List for these resistors assume that parts of the specified tolerance are used for C1 and R1 - R6. In this case no adjustment of R7 and R8 is needed. However, if poorly-matched components are used, resistor R7 should be a 22K 5% carbon resistor, and R8 should be replaced by a 43K 5% carbon resistor (R8A) and a 5K trimmer pot (R8B), as shown in Fig. 4. Then, use the *Feedback* adjustment procedure in the next section.

Modifications. A simpler version of this oscillator covering only 200, 1000, and 5000 Hz can be built using 741's, or a 1458 or 747 for IC1 and IC2. In this case, omit capacitors C5 and C6, resistors R1, R2, and R6, and section C of switch S1. Use a 3-position, 2-pole switch instead for S1, and use a 0.47 μ F capacitor for C4.

If a constant output-impedance step attenuator is desired, build the output circuit as shown in Fig. 5. Use a DPDT slide or toggle switch for S3 and 1/4-W carbon resistors of the values shown.

Adjustments

To adjust this audio oscillator, an oscilloscope and a.c. voltmeter are required.

If resistor R8 is a fixed precision resistor, perform only the *Output Level* adjustment. If resistor R8 is a combination of trim pot and fixed resistor, perform the *Feedback* adjustment and *Output Level* adjustment, in that order.

Feedback. To adjust the feedback, proceed as follows:

1. Set trim pot R8B for maximum resistance, and trim pot R10 at mid rotation.

2. Set the *FREQ* switch to 1 kHz and the output-level switch (S3) for *HI* output.

3. Connect an oscilloscope to the output jack (J1). Set the scope's input attenuator to 2 V per division.

4. Rotate the *OUTPUT* control fully clockwise, and observe the sine wave on the oscilloscope. Adjust trim pot R10 for a sine wave of about 8 V P-P.

5. Slowly turn trim pot R8B in the direction of minimum resistance while watching the scope. When you reach the point where the output amplitude drops below 4 V P-P or oscillation ceases entirely, turn the trim pot just enough in the other direction to produce a stable, constant-amplitude sine wave at all positions of the *FREQ* switch. (Note: the settling time is relatively long at 50 and 100 Hz; do not mistake this for instability.)

When pot R8B is set towards the critical point (near minimum resistance), distortion is extremely low (less than 0.05%) but the output amplitude varies greatly from one frequency to another and the output voltage available is far below spec. Setting pot R8B in this area is recommended only for single-frequency operation and only if low distortion is far more important to the application than stability. Conversely, when pot R8B is set towards maximum resistance,

The best ears in the business have judged our recorders.

Like to hear their verdict?



Model 8080 8-Track



Model 4766 Cassette Deck

"It (the Model 4766 Cassette Deck) is in every way typical of the finest cassette-deck performance—which is to say, very fine indeed. . . . It will probably do as many things as any cassette machine we know of. Furthermore, it does them about as well as the current state of the cassette art allows, and at a very down-to-earth price."

STEREO REVIEW, Aug. 1975

"... Wollensak is showing the way with innovations and improvements in these machines ... the Model 8080 (8-Track) has a frequency response which extends to over 16kHz and exhibits an excellent signal-to-noise ratio and low distortion ... how does the 8080 compare with a similarly-priced cassette machine? In terms of the basic performance parameters ... there isn't much to choose between the two formats at this price level."

AUDIO, Aug. 1975

Those are excerpts from recent reviews of Wollensak's 4766 Cassette and 8080 8-Track recorders. The experts have tested, analyzed, charted and listened to our decks. Now it's your turn. Because, as far as we're concerned, there's only one, true measure of our equipment—your ears.

There *is* a difference. It takes a sensitive, sophisticated ear to hear it, but that's the ear we're designing for at Wollensak.

We invite you to audition these recorders at your dealers. Compare price and performance with anything else on his shelves. And, if you still can't hear the difference, don't buy ours. While you're there, though, ask him for reprints of the entire reviews we've quoted here. Or, if you prefer, write 3M Company, Box 33050, Wollensak Dept. 400, St. Paul, Minnesota 55101.



Wollensak by 3M. Not for Tin Ears.

Check No. 35 on Reader Service Card

distortion is relatively high (about 1%) but the output amplitude is extremely flat even with poor matches between resistor pairs R1 - R6. Setting pot R8B in this area is recommended for applications where frequency response is more important than distortion. In between these extremes is an area where distortion and frequency response are both within the specification limits.

Output Level. Set the *FREQ* switch to 1 kHz and the output-level switch (S3) for *HI* output. Connect an a.c. voltmeter to the output jack (J1). Rotate the *OUTPUT* control

fully clockwise. Adjust trim pot R10 for a voltmeter indication of 3 V RMS.

As a final check, measure the output level at the other frequencies. If the difference between highest and lowest output amplitude exceeds 0.4 dB (or whatever you consider satisfactory), repeat the *Feedback* adjustment to determine the point that yields low distortion with low output-level variation. If a really-good distortion analyzer is available (Sound Technology 1700A or selected H-P 333A), check the distortion at 200 or 1000 Hz while performing these adjustments.

Use

The various uses of an audio oscillator are too numerous and too well known to discuss here in any depth, so this discussion will be confined to applications where the special characteristics of this device are especially valuable.

The most unique feature of the oscillator, relative to commercial equipment in its performance class, is that it is battery operated. This permits use in systems where power-line ground loops cause feedback problems, in locations where access to an a.c. outlet is difficult, and in field servicing or adjusting portable (remote-pickup) equipment. Its small size is an additional asset when working in cramped quarters behind a console or equipment rack or when test equipment must be transported to a remote location. Although not exactly "vest pocket" sized, the oscillator can easily be packed in a toolbox or attache case.

When the circuit is optimized for flat output, its frequency response will rival that of all but the very best oscillators on the market. Thus, it is suitable for critical frequency response measurements. Even if not so optimized, its frequency response is flat enough for nearly all studio measurements. Similarly, when the oscillator is optimized for low distortion, it can serve as the signal source for all but state-of-the-art distortion measurements.

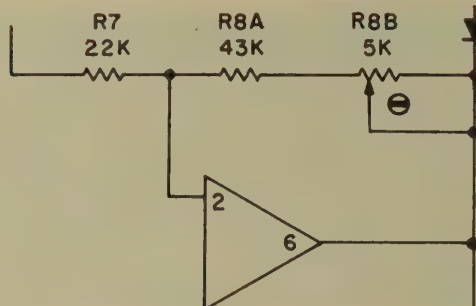


Fig. 4—Modification for achieving very low distortion.

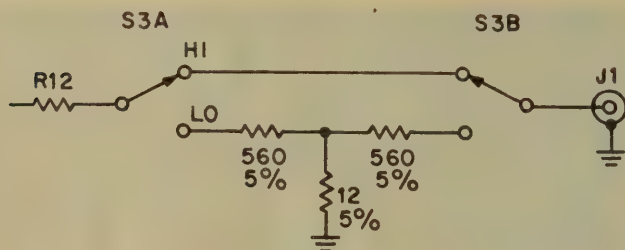


Fig. 5—Constant-impedance output attenuator.

SECRETS FROM THE AUDIO FILE

Sock that sibilant singer

ADVICE FROM: John Wilson, recording engineer, Capitol Records, Inc.

PROBLEM: Distortion and background wind. You're stalled by a sibilant singer. Or a performer who pops his p's. Or you're losing the wails of a howling wolf under the whistle of a howling wind.

RECORDING TIP: You can improvise a windscreens by fastening an old woolen sock over the mike. It shields the mike diaphragm from those sudden blasts of wind. You'll lose some high frequency, but you'll lessen the pops, whistles and rumbles. This makeshift filter works best with the worst mikes and well worn socks. Experiment with it. Sure, it's unscientific, but it's a good tip to have up your sleeve. Or, in your sock.

TAPE TIP: Accurate, distortion-free recording starts with the best tape and equipment you can afford. If you record music, the most demanding of sounds, there's no better tape to buy than The Music Tape by Capitol.



When you record music, record on

the music tape
cassette • cartridge • open reel

BY CAPITOL



CAPITOL MAGNETIC PRODUCTS

A DIVISION OF CAPITOL RECORDS, INC.

LOS ANGELES, CALIFORNIA 90028 • A MEMBER OF THE EMI GROUP



TM OF EMI LIMITED



KENWOOD is Quality

More of the best in stereo components
to give you top performance



For complete information, visit your nearest
KENWOOD Dealer, or write...

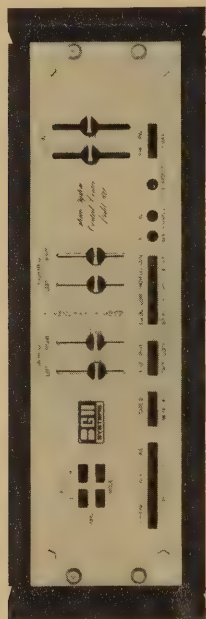
the sound approach to quality

 **KENWOOD**

15777 S. Broadway, Gardena, CA 90248 • 72-02 Fifty-first Ave., Woodside, N.Y. 11377 • In Canada: Magnasonic Canada, Ltd.

Check No. 27 on Reader Service Card

THE FIRST! PREAMP BY BGW



THE BGW 202 HAS—

- Dual discrete OP amp phono stage for unprecedented accuracy
- Active tone controls using sliding step switches
- Active 18-dB/OCT. High and low pass filters
- Two phono inputs plus accessory socket for moving coil pre-preamp converter
- Separate power amp switching
- Remote AC switching unit accessory available

Guaranteed specifications:

Phono stage: Gain=42-dB, ± 25 -dB of RIAA, S/N=82-dB, THD=.01%.

Tone controls: Active baxandall controls add virtually no distortion. ± 18 -dB at 50-Hz and 15-kHz in 3-dB steps.

High and low pass filters: Active 3-pole, 18-dB/OCT. Low frequency at 40-Hz, high frequency at 12-kHz.

Maximum output voltage: At line output, 8-volts RMS into 600-ohms ($+20$ -dBm). Phono at tape output, 10-volts RMS into 5-kohms. Rated output, 4-volts RMS into 5-kohms.

Total harmonic distortion: Less than .01% at rated output, 20-Hz-20-kHz.

Write for the location of your nearest dealer.



in Canada...

BGW Systems
P.O. Box 3742
Beverly Hills
CA 90212
(213) 391-0320

Recrion, Limited
105 Denison St.
Markham, Ont.
(416) 495-0880

Annual Equipment Directory

NEARLY 20 YEARS ago, *Audio* published its first Directory of High Fidelity Equipment. Since then, the annual Directory has grown, and this edition lists more than 1,500 products in 13 categories from more than 240 manufacturers. Even so, we do not list every product worthy of the adjective "high fidelity." Some makers do not wish to supply specifications, others could not be contacted in time, and in some categories we simply ran out of space.

Obviously, with this sort of volume, we must reply on the manufacturer's data, but we have found through our equipment reviews that the maker's specifications hold up very well. The tabular forms have been revised again this year, though such features as the letter codes have been kept. Readers should note, however, that amplifier power is specified as by the FTC test method, tuner specs show many figures of the new IHF standard, and that there is a new sensitivity figure in the speaker tables.

For additional data, the reader may write to the manufacturer at the address below. The addenda to the Directory will be published in December.

Manufacturer Directory

ADS, Inc.
Analog & Digital Systems, Inc.
64 Industrial Way
Wilmington, Mass. 01887

Ace Audio Co.
25 Aberdeen Dr.
Huntington, N.Y. 11743

Accuphase (See Teac)

Acoustic Research, Inc.
10 American Drive
Norwood, Mass. 02062

Acoustical Engineering
Box 221
Sunnyvale, Cal. 94088

Advent Corp.
195 Albany St.
Cambridge, Mass. 02139

Akai America, Inc.
2139 Del Amo Blvd.
Compton, Cal. 90220

AKG (See Philips)

Allison Acoustics, Inc.
7 Tech Circle
Natick, Mass. 01760

Altec Lansing
1515 S. Manchester St.
Anaheim, Cal. 92803

American Audio Labs.
4423 Saltillo St.
Woodland Hills, Cal. 91364

Astatic Corp.
Harbor & Jackson Sts.
Conneaut, Ohio 44030

Audioanalyst, Inc.
Box 262
Brookfield, Conn. 06804

Audio Dynamics Corp.
230 Pickett District Rd.
New Milford, Conn. 06776

Audio Laboratories, Inc.
2800 Cathedral Drive
Tallahassee, Fla. 32304

Audio Research Corp.
2843 26th Ave. S.
Minneapolis, Minn. 55406

Audionics
8600 NE Sandy Blvd.
Portland, Oregon 97220

Audiophile Systems
851 West 44th St.
Indianapolis, Ind. 46208

Audioson-Kirksaeter
60 East 42nd St.
New York, N.Y. 10017

Audio-technica, U.S. Inc.
33 Shiawassee Ave.
Fairlawn, Ohio 44313

A tribute to appreciation.

Music appreciation. Art appreciation. Appreciation for excellence in performance. A fulfillment that comes from the experience, not from the parameters by which it was created.

The Contrara Group of loudspeakers is a tribute to that appreciation. We should not deliberate how Amilio Contrara has sculpted the walnut, blended it with cloth and merged it with technology to bring visual satisfaction. Nor, how he has balanced the electronics with physics to provide audible gratification.

Ours is only to enjoy. To appreciate. To savor. Something only our ears and eyes can savor for themselves.

If you enjoy your music and quality craftsmanship, you'll appreciate the Contrara Group; it's a tribute to your sensitivity. Write us for additional information. We'll send you a booklet on appreciation and a list of locations where you can enjoy Contrara.



CONTRARA GROUP

JENNINGS RESEARCH INC.

64 N. Fair Oaks Ave. Pasadena, Calif. 91103
Canadian Distributors: THE AUDIO GROUP, INC. Ontario

CIRCLE 25 ON READER-SERVICE CARD

For name of nearest dealer, call toll free area code (800) 447-4700. In Illinois, call (800) 322-4400



FREE!

the 1976 Lafayette Electronics Catalog



Offering the *FINEST* in Home Entertainment Products

Akai • Audio Technica • B.I.C. • BSR • Burwen • dbx • Dokorder • Dual • Dyna • Empire • ESS • Garrard • Hitachi • Koss • Meriton • Micro Acoustics • Onkyo • Ortofon • Panasonic • Philips • Pickering • Sanyo • Sennheiser • Scotch • Shure • Sony • Stanton • Teac • Technics • TDK • Venturi • Wollensak

Plus **EXCLUSIVE**
LAFAYETTE
AUDIO PRODUCTS

Lafayette

the electronics shopping center

Mail Coupon
Today!

FREE

Dept. 27105
Lafayette Radio Electronics
111 Jericho Turnpike
Syosset, L.I., N.Y. 11791

Send me your FREE 1976 Catalog.

Name Apt. ...
Street
City State
Zip

Send a 1976 Catalog to my friend.

Name Apt. ...
Street
City State
Zip

Check No. 30 on Reader Service Card

Audiotex (See GC)

Auratone, Inc.
Box 580
Del Mar, Cal. 92014

Avid Corp.
10 Tripps Lane
East Providence, R.I. 02914

Bang & Olufsen America
2271 Devon Ave.
Elk Grove Village, Ill. 60007

Beyer (See Revox)

Benjamin Electronics Corp.
790 Park Ave.
Huntington, N.Y. 11743

Bertagni Electroacoustics
345 Fischer St.
Costa Mesa, Cal. 92662

Harold Beverage, Inc.
442 N. Milpas St.
Santa Barbara, Cal. 93103

BGW Systems
Box 3742
Beverly Hills, Cal. 90212

B•I•C
Westbury, N. Y. 11590

BML Electronics
Box 110
Wheeling, Ill. 60090

BQ Sonics
Box 386A
Gainesville, Fla. 36201

BSR, USA, Inc.
Route 303
Blauvelt, N.Y. 10913

Bose Corp.
100 The Mountain Rd.
Framingham, Mass. 01701

R.T. Bozak Mfg. Co.
Box 1166
Darien, Conn. 06821

B & W Electronics (See Linear Devices)

Cambridge
CM Laboratories
327 Connecticut Ave.
Norwalk, Conn. 06854

Cerwin-Vega
6945 Tujunga Ave.
N. Hollywood, Cal. 91605

Concord (See Benjamin)

Craig Corp.
921 W. Artesia Blvd.
Compton, CA 90220

Crown International
Box 1000
Elkhart, Ind. 46517

Dahquist, Inc.
27 Hanse Ave.
Freeport, N.Y. 11520

Dathar Acoustics
Box 112
Ramsey, N.J. 07446

Dayton-Wright Associates
Box 419
Thornhill, Ontario, Canada

Decca (See Paoli)

Design Acoustics
2909 Oregon Ct.
Torrance, Cal. 90503

Discwasher, Inc.
909 University
Columbia, Mo. 65201

Dokorder, Inc.
5430 Rosencrans
Lawndale, Cal. 90260

Dual (See United Audio)

Dunlap-Clarke Electronics
40 Creighton St.
Cambridge, Mass. 02140

Dynaco, Inc.
Box 88
Blackwood, N.J. 08012

ELAC (see Benjamin)

Epicture
EPI, Inc.
1 Charles St.
Newburyport, Mass. 01950

ERA (see Audionics)

ESS, Inc.
9613 Oates Drive
Sacramento, Cal. 95827

Eastman Sound
Harmony Road
Mickelton, N.J. 08056

Electrostatic Research
38 Cabot St.
Beverly, Mass. 01915

Electro-Voice, Inc.
600 Cecil St.
Buchanan, Mich. 49107

Elpa Marketing
Thorens & Atlantic Aves.
New Hyde Park, N.Y. 11040

Empire Scientific Corp.
1055 Stewart Ave.
Garden City, N.Y. 11530

EMT (see Gotham)

Equasound
11430 Victoria
Los Angeles, CA 90066

Ercona Corp.
2492 Merrick Road
Bellmore, N.Y. 11710

Fairfax Industries
900 Passaic Ave., Bldg. 18
East Newark, N.J. 07029

Ferrograph (see Elpa)

Fidelity Research
Box 5242
Ventura, Cal. 93003

Fisher Radio
11-40 45th Rd.
Long Island City, NY 11101

Frazier, Inc.
1930 Valley View Lane
Dallas, Tex. 75234

Gale (see Roth/Sindell)

Garrard (see Plessey)

GC, Div. Hydrometals
400 S. Wyman St.
Rockford, Ill. 61101

Glenburn Corp.
4 North St.
Waldwick, N.J. 07463

Gollehon Co.
Box 1964
Grand Rapids, Mich. 49501

Gotham Audio Corp.
741 Washington St.
New York, N.Y. 10014

Grace (see Sumiko)

Great American Sound
8780 Shoreham Drive
West Hollywood, Cal. 90069

GTE Sylvania
700 Ellicot St.
Batavia, N.Y. 14020

Harman-Kardon
35 Ames Court
Plainview, N.Y. 11803

Hartley Products, Corp.
54-56 N. Summit St.
Tenafly, N.J. 07670

Haynes Micro-Electronics
Box 457
Lawrence, Kan. 66044

Heath Company
Benton Harbor, Mich. 49022

Hegeman Labs., Inc.
555 Prospect St.
E. Orange, N.J. 07017

Hitachi Sales Corp.
401 W. Artesia Blvd.
Compton, Cal. 90220

IMF Products
7616 City Line Ave.
Philadelphia, Pa. 19151

Infinity Systems, Inc.
7930 Deering Ave.
Canoga, Cal. 91304

JBL
3249 Casitas Ave.
Los Angeles, Cal. 90039

JVC America, Inc.
50-35 56th Road
Maspeth, N.Y. 11378

Janis Audio Associates
2889 Roebling Ave.
Bronx, N.Y. 10461

JansZen Div. Electronic Inds.
7516 42nd Ave. N.
Minneapolis, Minn. 55424

Jennings Research, Inc.
64 N. Fair Oaks Ave.
Pasadena, Cal. 91103

Jensen Sound Labs
4310 Trans World Rd.
Schiller Park, Ill. 60176

Johnson Industries
3501 C St. NE
Auburn, Wash. 98002

KLH Res. & Dev. Corp.
30 Cross St.
Cambridge, Mass. 02139

Kenoson (see Teac)

Kenwood Electronics
72-02 51st Ave.
Woodside, N.Y. 11377

King Research
Box 125
Greenville, Ohio 45331

Klein & Hummel (see Gotham)

Klipsch & Associates
Box 280
Hope, Ark. 71801

Koss Corp.
Box 2320
Milwaukee, Wisc. 53212

Lafayette Radio Electronics
111 Jericho Tpke.
Syosset, N.Y. 11791

Leak (see Ercona)

Lenco (see Uher)

Leslie Div. CBS, Inc.
56 West Del Mar Blvd.
Pasadena, Cal. 91105

Mark Levinson Audio
55 Circular Ave.
Hamden, Conn. 06514

Linear Devices
148 French St.
New Brunswick, N.J. 08901

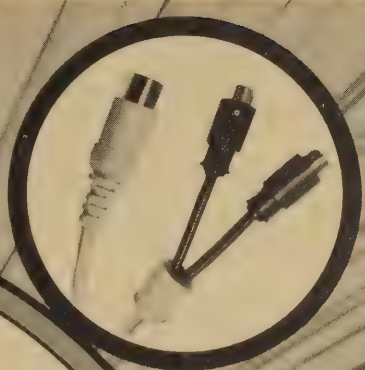

Linear Sound Systems
5400 Folsom Blvd.
Sacramento, Cal. 95819

Linn Sondek (see Paoli and Audiophile)

Luxman
Lux Audio of America
200 Aerial Way
Syosset, N.Y. 11791

3M Company
3 M Center Bldg.
St. Paul, Minn. 55119


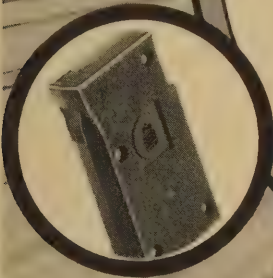
Magtran Co.
311 E. Park Ave.
Moonachie, N.J. 07074



THE NEW ACTION-LOOK AT ASTATIC

Means New Profits For You

OVER 100 ITEMS IN THE NEW
ASTATIC AUDIO ACCESSORY LINE

- NEW MICROPHONE ACCESSORIES
 - STEREO HEADPHONES • AUDIO CABLES, PLUGS
AND ADAPTORS • RECORD ACCESSORIES
 - 45 RPM SPINDLE ADAPTORS
- 
- 



THE ASTATIC CORPORATION

Conneaut, Ohio 44030 U.S.A.

In Canada: Canadian Astatic Ltd., Scarborough, Ontario M1H 2V5

Export Sales: Morhan Exporting Corp.

270 Newtown Road, Plainview, New York 11803, U.S.A.

**THE NATION'S ONLY MANUFACTURER OF ALL 4:
MICROPHONES, PHONO CARTRIDGES, NEEDLES AND TONE ARMS**

TOYO

Peak Level Meter

You can enjoy
professional
recording!



TOYO PEAK LEVEL METER is a magnetic-type, built-in meter using a needle indicator. The uncomplicated design relies on Toyo's great experience, high level technology, and extensive background as the first producer of the magnetic-type built-in meter. The meter precisely indicates signal level peaks even in complex audio signals, and thus it can correctly monitor either S/N ratio (caused by a low signal level from amp, tape deck, etc.) or distortion at high frequencies (with too high a signal level). (Patent Pending.)

SPECIFICATIONS

Indication Range	—40dB— + 5dB
Frequency Deflection	40Hz—20KHz + 0.5dB
Input Level	0dB81V rms
Input Impedance	100K or more
Lamp	AC 6.3V 140mA
Responding Time (At start-up)	1 msec. or more
Recovery Time	About 2.5 sec.
Power Supply	DC 24zv\$1zv
Power Consumption	360mW or less

We are also manufacturing
Subminiature Meter for Battery Checker,
Level Meter for Tape-Recorder,
Tuning Meter for Stereo Hi-Fi Set,
VU Meter and variety of Panel Meters.

TOYO CORPORATION OF AMERICA

12627 Crenshaw Blvd.
Hawthorne, California 90250
Phone (213) 772-1668

Div. of Toyo Musen Co., Ltd.
Tokyo Japan

Magnepan
1124 1st St.
White Bear Lake, Minn. 55110

Magnum Opus
220 W. 19th St.
New York, N.Y. 10011

Marantz Company
8150 Vineland
Sun Valley, Cal. 91352

Martin (see Eastman)

Maximus (Audimax Int'l Co.)
1530 W. El Segundo Blvd.
Gardena, Cal. 90249

McKay-Dymek Co.
625 N. Park Ave.
Pomona, Cal. 91766

Meriton Electronics
35 Oxford Dr.
Moonachie, N.J. 07074

Mesa Electronics, Ltd.
1449 E. Algonquin Road
Mt. Prospect, Ill. 60056

Micro (see Tannoy)

MX
Magnavox Corp
1700 Magnavox Way
Ft. Wayne, Ind. 46804

Nagra Magnetic Recorders
19 West 44th St.
New York, N.Y. 10036

NAIM (see Audiophile)

Nakamichi Research
220 Westbury Ave.
Carle Place, N.Y. 11514

Neal (see Audiophile)

Neumann (see Gotham)

Nikko Electric
16270 Raymer St.
Van Nuys, Cal. 91406

Philips
1 Philips Parkway
Montvale, N.J. 07645

Olson Electronics
260 S. Forge St.
Akron, Ohio 44308

Onkyo
25-19 43rd Ave.
Long Island City, N.Y. 11101

Ortofon
9 East 38th St.
New York, N.Y. 10016

Otari Corp.
981 Industrial Rd.
San Carlos, Cal. 94070

Our Glass Speaker Co.
344 S. Whiting St.
Alexandria, VA 22304

Pacific Electronics
6601 Bay St.
Emeryville, Cal. 94608

Paoli Hi-Fi
Box 876
Paoli, Pa. 19301

PE-Impro Industries
120 Hartford Ave.
Mt. Vernon, N.Y. 10553

Pearl (see Ercona)

Phase Linear Corp.
405 Howell Way
Edmond, Wash. 98020

Phase Concept (see Johnson Ind.)

Pickering & Company
101 Sunnyside Blvd.
Plainview, N.Y. 11803

Pilot Radio
165 West Putman Ave.
Greenwich, Conn. 06830

Pioneer Electronics
75 Oxford Drive
Moonachie, N.J. 07074

Plessey Ltd.
170 Finn Court
Farmingdale, N.Y. 11735

Polk Audio
490 Wetheredville Rd.
Baltimore, Md. 21207

Primo Co., Ltd.
2468 Delta Lane
Elk Grove Village, Ill. 60601

Quadralflex (see Pacific)

Quintessence Group
1626 N. "C" St.
Sacramento, Cal. 95814

Rabco (see Harman-Kardon)

Radford (see Audionics)

Radio Shack
2617 W. 7th St.
Ft. Worth, Tex. 76107

Radio Speakers (Canada)
221 Norsman St.
Toronto, Ontario, Canada

Realistic (see Radio Shack)

Rectilinear Res. Corp.
107 Bruckner Blvd.
Bronx, N.Y. 10454

Revox Corp.
155 Michael Drive
Syosett, N.Y. 11791

Rola Celestion
Rocelco, Inc.
160 Ronald Drive
Montreal, Canada H4X 1M8

Rolf/Sindell
540 Kelton Ave.
Los Angeles, Cal. 90024

Rotel of America
2624 Central Park Ave.
Yonkers, N.Y. 10710

RTR Industries
8116 Deering Ave.
Canoga Park, Cal. 91304

Ruxton Electronics
Box 30312
Santa Barbara, Cal. 93105

SAE, Inc.
Box 60271, Terminal Annex
Los Angeles, Cal. 90060

Sansui Electronics
55-11 Queens Blvd.
Woodside, N.Y. 11377

Schober Organ Corp.
43 West 61st St.
New York, N.Y. 10023

H.H. Scott, Inc.
111 Powdermill Rd.
Maynard, Mass. 01754

Sennheiser Electronics
10 West 37th St.
New York, N.Y. 10018

Sequerra Corp.
71-07 Woodside Ave.
Woodside, N.Y. 11377

Sharp Electronics Corp.
10 Keystone Place
Paramus, N.J. 07652

Sherwood Electronics
4300 N. California
Chicago, Ill. 60618

Shure Bros.
222 Hartrey Ave.
Evanston, Ill. 60204

SME (see Shure)

Sonex
Sumiko Inc.
Box 5046
Berkley, Cal. 94705

Sonic Research, Inc.
27 Sugar Hollow Road
Danbury, Conn. 06810

Sony Corp. of America
9 West 57th St.
New York, N.Y. 10019

Soundcraftsmen
1721 Newport Circle
Santa Ana, Cal. 92705

Speakerlab
550 35th St. SE
Seattle, Wash. 98105

Stanton Magnetics
Terminal Drive
Plainview, N.Y. 11803

Stark Designs
7621 Fulton Ave.
N. Hollywood, Cal. 91605

Stax (see Discwasher)

Sumiko
Box 5046
Berkley, Cal. 94705

Superex Electronics
151 Ludlow St.
Yonkers, N.Y. 10705

Superscope, Inc.
8150 Vineland Ave.
Sun Valley, Cal. 91352

Supex (see Sumiko)

Sylvania (see GTE Sylvania)

Tandberg of America
Labriola Ct.
Armonk, N.Y. 10504

Tannoy America, Inc.
1756 Ocean Ave.
Bohemia, N.Y. 11716

Tapco
405 Howell Way
Edmonds, Wash. 98020

Teac Corp. of America
7733 Telegraph Rd.
Montebello, Cal. 90640

Technics by Panasonic
One Panasonic Way
Secaucus, N.J. 07094

Telephonics
770 Park Ave.
Huntington, N.Y. 11743

Telefunken (see Gotham)

Telex Communications
9600 Aldrich Ave. S.
Minneapolis, Minn. 55420

Thorens (see Elpa)

Toshiba America, Inc.
280 Park Ave.
New York, N.Y. 10017

The Turner Co.
909 17th St., NE
Cedar Rapids, Iowa 52402

United Audio Products
120 S. Columbus Ave.
Mt. Vernon, N.Y. 10553

Uher of America
621 S. Hindry Ave.
Inglewood, Cal. 90301

Venturi (see B•I•C)

Vidaire Elec. Mfg. Co.
150 Buffalo Ave.
Freeport, N.Y. 11520

Win Laboratories
1301 Norman Firestone Rd.
Goleta, Cal. 93017

Wollensak, Div. 3M
3M Center Bldg.
St. Paul, Minn. 55119

Yamaha
660 Orangethorp Ave.
Buena Park, Cal. 90620

Drop in a Fuji



and you'll drop all the others...

There is a new cassette on the market. The FUJI FX, a Pure Ferrix cassette that soon will be the standard of excellence for top quality, truly high fidelity reproduction. It already is in many parts of the world.

FUJI FX gives you the music you want, the way you want your music. Clear, crisp sound over the entire audio frequency range without perceptible distortion. A signal-to-noise ratio of better than 58db. No hiss. Virtually failure-proof. The finest music at your fingertips without

the need for any special bias. Drop in at your FUJI dealer today; then drop in a FUJI and hear music as you have never heard it before.

FUJI FX cassettes come in lengths of 46, 60 and 90. Also available, a full line of FUJI FL Low Noise cassettes in lengths of 30, 60, 90 and 120 minutes.

FUJI Photo Film U.S.A., Inc.
The Empire State Building,
New York, New York 10001.



Check No. 22 on Reader Service Card

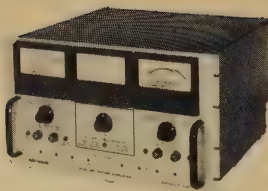
FUJI FILM

**THE TAPE THAT'S HEARD
AROUND THE WORLD**

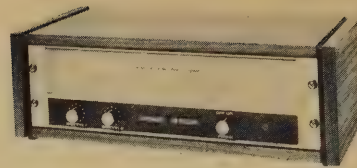
Amplifiers



Accuphase E-202



Audio Research D-150



Crown D-150A

MANUFACTURER	MODEL	FTC power/chan., 8 ohms, watts		Freq. range for rated power, Hz - kHz		Highest THD from 0.25W to rated power, %		Highest IM from 0.25W to rated power, %		S/N, phono, re 10 mV input, dB		Phono sensitivity, in mV., Phono 1, Phono 2		Phono overload, in mV., Phono 1, Phono 2		Mike input sens., mV		High level input, V		Headphone output level, V		Headphone load impedance		Output impedance, ohms		Damping factor, 1 kHz		Dimensions, in inches		Weight, lbs. (net)		Price, \$		NOTES
ACCUPHASE	P-300 E-202	150 100	20-20 20-20	0.1 0.15	0.1 0.1			*				1.0 1.6	0.16						4-32	** **	20 20	18x6x14 18x6x14	55 43	750.00 750.00	** 4, 8, 16 *2.5-5/2.5; **4, 8, 16									
AMERICAN AUDIO	(T,B) 4002	200	5-30	0.1	0.1	-	-	-	-	-	-	1.5	-	-	-	-	-	-	8	100	19x5¼x17	65	1500.00	Direct-coupled triodes, rack mount, peak pwr. indicators, 3-dB/step attn. swit.										
AUDIONICS	P23 P23C	100 70	20-20 20-20	.03 .03	.05 .05														4/8 4/8	100 100	19x5½x14 17x5½x12	32 24	399.95 295.00	Also avail. w/o front panel, power sw., rack handles, at \$370.00 Lower power, utility version of above.										
AUDIO RESEARCH	(T,B) D150 (T,B) D76A (T,B) D52	150 75 50	20-15 20-15 20-15	0.5 1.0 1.0	0.3 0.5 0.5														* * *	** ** **	19x10½x16½ 19x7x12¼ 16x10x8	110 52 32	1995.00 1195.00 595.00	*Output transformer taps at 4, 8 or 16 ohms; **14 at 8 ohms. Rack mount. * ** as above * ** as above										
BGW SYSTEMS	(B) 250B (B) 500D (B) 750A (B) 1000 (Q,B) 4X250 X4 (B) 100	90 200 200 250 200 30	20-20 20-20 5-15 5-20 5-20 20-20	0.1 0.1 0.15 0.2 0.2 0.1	0.1 0.1 0.15 0.2 0.2 0.1	110 110 110 110 110 110	- - - - - -	- - - - - -	- - - - - -	1.5 2.0 2.0 2.0 2.0 .75	- - - - - 15	- - - - - 2	- - - - - 2	2 2 2 2 2 2	500 1000 1000 1000 500 250	19x11½x5½ 19x12x7 19x12x7 19x17x7 19x17x7 19x17x7	28 49 49 70 70 70	499.00 839.00 979.00 1399.00 1499.00	Front panel ckt. brkr., mono switch. Fan included. Mono switch, fan.															
BOSE	(B) 1801	250	20-20	0.5	0.5							1.5									40		84	986.00	2 VU meters, LED output level display.									
BOZAK	929	150	20-20 +0, -0.2	.2	.2	-	-	-	-	-	-	1.0	-	-	-	-	-	-	8	100	19x12x7	44	849.00	929 includes meters. Model 929 PV avail. w/o meters: \$749.00										
CAMBRIDGE (CM LABS)	Classic One	50	20-20	.05	.05	65	2/2	3000				.25	10	8	4	100	16½x9x2					14	600.00											
CERWIN-VEGA	(B) A-1800 (B) A-3000I	225 365	20-20 20-20	.08 .08	.02 .02							1.5 1.5							4 4	500 500	19x11½x8 19x11½x8	33 50	599.00 1199.50	LED output indicators; voltage/current limiters. Incl. electronic crossovers at 250 Hz, VU meters.										
C/M LABS	(B) CM912	150	20-20	0.2	0.1														4	50	19x15½x5½	39	900.00	Input impedance 50K. *Input sens. 1.0 V.										
CROWN	(B) D-60 (B) D-150A (B) DC-300A (B) M-600	28 80 155 600	20-20 1-20 1-20 1-20	0.05 0.05 0.05 0.05	0.01 0.01 0.01 0.01	106 110 110 120						0.775 1.19 1.75 3.5	15.0	*	** 1-16 1-16 1-16	200 200 200 400	17x8½x1½ 17x8½x5½ 17x9¾x7 19x16½x8½	10 25 48 92	269.00 479.00 799.00 1695.00	*4 or greater; ** 4, 8, 16 Mono.														
DUNLAP CLARKE	(B) 1000 (B) 500	250 150	20-20 20-20	0.25 0.25	0.25 0.25							1.75 1.2				2 2	500 500	19x7x15 19x7x12				80 45	1199.00 799.00	Walnut case, \$80.00. Walnut case, \$60.00.										
DYNACO	(B) Stereo 400 (B) Stereo 410 (B) QSA-300 (B) Stereo 150 (B) Stereo 120 (B) Stereo 80 (B) SCA-80Q (B,T) MK-III	200 200 75 75 60 30 30 50	20-20 20-20 20-20 25-15 20-20 20-20 50-10	.25 .25 .25 .5 .5 .5 1.0	.1 .1 .25 .5 .5 .5 .5	 60	 3.0	 80	 	1.6 1.6 1.0 1.0 1.5 1.3 .13 1.6	 1.2	 8	 4-16	8,16 8,16 8,16 8 8 8 15	80 80 80 40 40 40 9x9x7	17x14x7 17x15x8 18½x14½x8 14½x13½x6½ 13x10½x4 14x8x4 13½x4¼x11½	52 45 55 29 20 13 16 28	725.00 599.00 769.00 359.00 269.00 199.00 299.00 179.00	Kit: \$499.00. W. meters, ST-400M/A \$799.00, MC-4 meter kit, \$85.00, Fan-1 fan kit, \$30.00, PBK-400 rack mount, \$14.95. Kit: \$399.00. Built-in fan. Space for adding level cntls. Kit: \$449.00. Wired incl. four mtrs., QSA-300M/A, MC-3 meter kit avail. Kit: \$249.00 Kit: \$189.00 Kit: \$139.00 Kit: \$185.00 Kit: \$139.00															
EPI	ONE	125	10-30	0.2	0.2	-	-	-	-	-	-	-	-	-	-	2-20	1000	18½x12½x7½				58	649.00	Voltage & current overload indicators.										
ESS	(B) 1004A (B) 1002A (B) 500A (B) 250A (B) 250	* * * * *	20-20 20-20 20-20 20-20 20-20	0.25 0.25 0.25 0.25 0.25	0.25 0.25 0.25 0.25 0.25	- - - - -	- - - - -	- - - - -	- - - - -	0.75 0.75 0.75 0.75 0.75	- - - - -	- - - - -	4 2 8 4 4				19x15x7 19x15x7 19x12¾x7 19x12¾x7 19x12¾x7	46 46 43 40 37	860.00 860.00 795.00 627.00 465.00	Metered, F/A cooling, A & B spkr. systems. *Watts @ 4 ohms, 500. Metered, F/A cooling, A & B spkr. systems. *Watts @ 2 ohms, 500. Metered, A & B spkr. systems. *Watts @ 8 ohms, 250. Metered, A & B spkr. systems, *Watts @ 4 ohms, 250. *Watts @ 4 ohms, 250.														

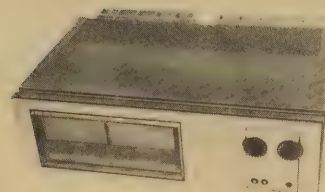
Amplifiers



Dunlap Clarke 1000



Heathkit AA-1640



Luxman M-4000

MANUFACTURER			MODEL		FTC power/chan., 8 ohms, watts		Freq. range for rated power, Hz - kHz		Highest THD from 0.25W to rated power, %		Highest IM from 0.25W to rated power, %		S/N phono, re 10 mV input, dB		Phono sensitivity, in mV, Phono 1, phono 2		Mike input sens., mV		High level input, V		Headphone output level, V		Headphone load impedance		Output impedance, ohms		Damping factor, 1 kHz		Dimensions, in inches		Weight, lbs. (net)		Price, \$		NOTES
GREAT AMERICAN SOUND	(B) Ampzilla	200	20-20 ±.1	.05	.05	100*									1.6								100+	17½x9x7	46	599.00(K) 799.00(W)							* Re preamp in; direct-reading power mtrs. preceded by (T). * Re preamp in; direct-reading power mtrs.		
	(B) Son of Ampzilla	80	20-20 ±.1	0.5	0.5	100*									1.0								100+	15½x7x5	25	369.00							Mono., 1000 watts into 2 ohms. * As above.		
	(B) Godzilla	300	20-20 ±.1	.25	.25	100*									1.6								100+	17½x9x7	50	799.00							Pure class a, servo controlled.		
	(B) White Knight	90	20-20 ±0.5	0.5	0.5																	8	100	19x12x8	50	999.00									
HAYNES	(T,B) 9	100	20-20	0.25	0.25										1.6						*	30+	22x15x12	65	499.50(W) 299.70(K)								Mono, 1C-regulated power supply. * 4, 8, 16.		
HEATH	(B) AA-1640	200	20-20	0.1	0.1	—	—	—	—	1.5	—	—											50	19x18x7½	58	439.95(K)								Output meters AAA-1640-1, 69.95. 5 inputs incl. tape monitor, tone flat, loudness, 2 spkr. switches.	
	AA-15	50	20-20	0.5	0.5	60	2.2	155	—	0.2												45	17x12½x4¼	21½	199.95(K)								Modular construction, 6-inputs incl. tape monitor, 2 spkr. switches.		
	AA-29	35	20-20	.25	0.2	65	2.2	155	—	0.18												50	16x14½x5	22½	184.95(K)								Tape monitor input, Stereo headphone jack, spkr. switch.		
	AA-1214	15	20-20	0.5	0.5	60	2.0	75	—	0.19												30	12x12x4	9½	109.95(K)								* Exceeds 5V using input level control.		
	(Q) AA-2005A	15	20-20	0.5	0.5	60	2.2	35*		0.2												30	19x12x5	24	139.95(K)								Modular construction, SQ matrix system.		
INFINITY	(T) 500DSP	250	20-20	0.1	0.1																		40	18½x16x4¼	35	1850.00							Digital signal processing (switching amplifier)		
JVC	4VN-770	11	10-30	0.5	0.8	65	2.5		—	.07												—		16½x12x5½	21½	279.95							Two tape monitors, two matrix decoders, four VU meters.		
	4VN-990	30	10-30	0.5	0.8	65	2.5/2.5		—	0.15												—		16½x15½x5½	35½	599.95									
	VN-900	50	20-20	0.25	0.4	56	2.5	250	—	0.2												—		16½x12½x5½	28	399.95									
KENWOOD	KA-8006	70	20-20	0.2	0.2	76	2.5/2.5	250	2.5	0.15	0.57	8											30	17x6¼x11½	29½	439.95									
	KA-6006	48	20-20	0.3	0.3	76	2.5/2.5	250	2.5	0.15	0.48	8											30	17x6¼x11½	26	359.95									
	KA-4006	32	20-20	0.5	0.5	76	2.5/2.5	140	—	0.15	0.28	8											30	17x6¼x12	24	259.95									
	KA-1400G	14	50-20	0.8	0.8	68	2.5/2.5	80	3	0.15	0.32	8											30	14½x5x10	11½	159.95									
	(B) 70017	170	20-20	0.1	0.1	100	—	—	—	—	0.36	8											40	17½x8x14½	59½	749.95									
LAFAYETTE	(Q) LA-84	20	20-20	0.5	1	60	6/4	12/84		0.5	*	8-16	8	—	15½x13x4¼	19	349.95																4-chan. SQ full logic; optional CD-4 demodulator; *Phones output level variable.		
	LA-1050	22	20-20	0.5	1	60	2.5/6	42/85		0.5	*	8-16	8	—		11	149.95																Headphone jack has 4-chan. ambience matrix. *As above.		
	LA-475	10	40-20	0.8	1	65	130/3.5			0.35	*	8-16	8	—	12½x10½x4¼	10	99.95																4-chan. ambience matrix. *As above.		
LEAK (ERCONA)	2100	30	10-40	0.1	0.1		2.2/6	*		0.83				4-8	40	16¼x12½x5½	17½	495.00																*Input overload margin +35 dB	
	2200	45	10-40	0.1	0.1		2.5/6.5	*		1.0					40	16¼x12½x5½	20	650.00																*As above	
LUXMAN	(B) M-6000	300	20-20	0.05	0.05																	8	100	22x17x9	115	2995.00								LED Peak Indicator	
	(B) M-4000	180	20-20	0.05	0.05																	8	100	19x15x7	68	1495.00								LED Peak Indicator	
	(B) M-2000	110	20-20	0.05	0.05																	8	70			995.00								LED Peak Indicator	
	(B) M-1500	75	20-20	0.05	0.05																	8	50	19x10x7	34	795.00								Touch Muting	
	L-100	110	20-20	0.05	0.05	65	3/3	450/450		0.18												8	50	19x14x7	42	995.00								Linear Equalizer	
	L-309	75	20-20	0.1	0.05	65	2.5/2.5	300/300		0.1												8	40	19x12x6	28	795.00									
	L-507	50	20-20	0.1	0.05	65	2.4/2.4	300/300		0.1											8	40	18x11x7	25	495.00										
MARANTZ	1150D	75	20-20	0.1	0.1	78	1.8	300	1.8	.18			8	8	45	15½x12½x5½	33	549.95																Incl. Dolby	
	1150	75	20-20	0.1	0.1	78	1.8	300	1.8	.18			8	8	45	15½x12½x5½	33	449.95																	
	1070	35	20-20	0.3	0.3	78	1.8	120		.18			8	8	45	14½x10½x4¼	19	279.95																	
	1040	20	20-20	0.3	0.3	78	2.1	120		.15			8	8	45	14½x10½x4¼	16	199.95																	
	1200B	100	20-20	0.1	0.1		1.35			.13			8	8	100	15½x12½x5½	31	699.95																	
	(B) 510	256	20-20	0.1	0.1								8	8	100	15½x12½x5½	46	899.95															With meters 999.95		
	(B) 250M	126	20-20	0.1	0.1								8	8	100	15½x12½x5½	28	549.95															Incl. meters.		
	(B) 140	75	20-20	0.1	0.1								8	60	14½x10½x4¼	24½	299.95																incl. meters.		
	(Q) 4140	25	20-20	.3	.3		1.8	110		.18			8	8	40	15½x12½x5½	33	549.95																4-channel meters	
	(Q) 4070	15	40-20	.9	.9		2.0	100		.15			8	8	40	14½x10½x4¼	25	299.95																	

Amplifiers



Nikko Beta

Pioneer SA-9900

SAE Mk 2500

MANUFACTURER	MODEL	FTC power/ch. 8 ohms, watts															Freq. range for rated power, Hz - kHz															Highest THD from 0.25W to rated power, %															Highest IM from 0.25W to rated power, %															S/N phono, re 10 mV input, dB															Phono sensitivity, in mV, Phono 1, Phono 2															Phono overload, in mV, Phono 1, Phono 2															Mike input sens., mV															High level input, V															Headphone output level, V															Headphone load impedance															Output impedance, ohms															Damping factor, 1 kHz															Dimensions, in inches															Weight, lbs. (net)															Price, \$															NOTES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												</											

When listening becomes an art... CROWN

The ideal component is not a performing instrument. It achieves the ultimate when it adds nothing to the music. Zero noise, zero distortion, zero anything. This "nothingness" concept is CROWN's goal through the tortuous, painstaking production route each product takes at CROWN.

The payoff is at the end of the line: CROWN's 18-point Proof of Performance sheet... a unique guarantee. First, as with most things at CROWN, it is completed and signed

by hand (not a stamp, not a number)... by a real, live person*! And no technician will sign that sheet unless the guaranteed performance specs have been verified.

A CROWN owner gets a product *better* than he was promised! Unbelievable? Not to a CROWN owner. That's why he buys another CROWN... and another. Getting something more is a pleasant surprise in these days of "push-it-thru" production philosophy. A casual observer of a CROWN production line might say we have a complex about hands. Hands are

everywhere. Young hands, nimble fingers, painstaking hands. CROWN builds with hands... tests with machines. CROWN people are responsible people. That's why John Bachman's technicians won't sign your Proof of Performance sheet unless the product performs as promised... or better.

CROWN. Maker of highest quality power amps, input and output control centers, tape decks, electronic crossovers and electrostatic speaker systems.

*John Bachman, supervisor of the recorder set-up and inspection department, graduate of DeVry Institute of Technology in Chicago; twenty-five years old, with Crown five years.

John and his team of inspectors do their utmost to make sure you will never have a reason to complain!



CROWN

Box 1000

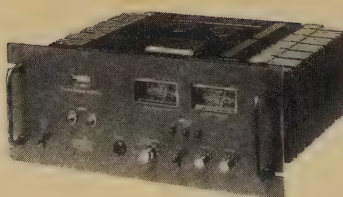
Elkhart, IN. 46514

Check No. 17 on Reader Service Card

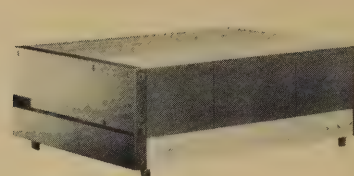
Amplifiers



Sansui BA-5000



Technics SE-9600



Yamaha B-1

MANUFACTURER	MODEL	FTC power/chan., 8 ohms, watts		Freq. range for rated power, Hz - kHz		Highest THD from 0.25W to rated power, %		Highest IM from 0.25W to rated power, %		S/N phono, re 10 mV input, dB		Phono sensitivity, in mV, Phono 1, phono 2		Phono overload, in mV, Phono 1, phono 2		Mike input sens., mV		High level input, V		Headphone output level, V		Headphone load impedance		Output impedance, ohms		Damping factor, 1 kHz		Dimensions, in inches		Weight, lbs. (net)		Price, \$		NOTES
SANSUI	(B) BA-5000	300	20-20	0.1	0.1									0.7				*	10		19x18 ³ / ₈ x8 ³ / ₈	108	1299.95									Power meters; 600W mono; *outputs at 4, 8, 16.		
	(B) BA-3000	170	20-20	0.05	0.05									0.7				4.8	100		18 ¹ / ₈ x15 ¹ / ₈ x7 ¹ / ₈	49.8	899.95								Power meters; 340W mono.			
	AU-20000	170	20-20	0.05	0.05	70	**	350/350						0.13							18 ¹ / ₈ x15 ¹ / ₈ x7 ¹ / ₈	49.8	999.95								Power meters; *Outputs at 4, 8, 16 ohms. **1.5, 3, 6/1.5, 3, 6 mV.			
	AU-11000	110	20-20	0.08	0.08	65	**	300/300						0.13						4.8		18 ¹ / ₈ x14 ¹ / ₈ x6 ¹ / ₈	42.5	749.95							**As above.			
	AU-9900	80	20-20	0.08	0.08	65	**	300/300						0.13						4.8		18 ¹ / ₈ x14 ¹ / ₈ x6 ¹ / ₈	39.7	599.95										
	AU-7700	55	20-20	0.1	0.15	75	2.5/2.5	300/300						0.1/0.8						8	30	17 ¹ / ₈ x12 ¹ / ₈ x5 ¹ / ₈	27.1	399.95										
	AU-6600	42	20-20	0.15	0.15	70	2.5	300/300						0.1/0.8						8	30	17 ¹ / ₈ x12 ¹ / ₈ x5 ¹ / ₈	24.9	359.95										
	AU-5500	32	20-20	0.15	0.2	70	2.5	200						0.1/0.8						8	30	17 ¹ / ₈ x12 ¹ / ₈ x5 ¹ / ₈	22.9	299.95										
	AU-4400	20	40-20	0.3	0.5	70	2.5	100	2.5	0.15				0.15						8	50	15 ¹ / ₈ x9 ¹ / ₈ x4 ¹ / ₈	13.9	199.95										
AU-2200	10	40-20	0.8	1.0	65	2.5	100	2.5	0.15				0.15						8	30	15 ¹ / ₈ x9 ¹ / ₈ x4 ¹ / ₈	12.1	149.95											
SCHÖBER	(B) TR-3D	70	5-40 +.5	0.1	.07	85							.15-1.0*						4-16	28	5 ¹ / ₈ x11 ³ / ₈ x8	17 ¹ / ₂	240.00(K)									*Adjustable.		
	(B) TR-3M	70	5-40 +.5	0.1	.07	85							.15-1.0*						4-16	28	5 ¹ / ₈ x11 ³ / ₈ x8	16 ¹ / ₂	176.00(K)									*Adjustable, mono.		
H. H. SCOTT	A236S	15	20-20	0.5	0.5	60	2.5	55					0.15			150	8	35		15 ¹ / ₈ x9 ¹ / ₈ x5 ¹ / ₈	12	159.95												
SHERWOOD	SEL-400	85	20-20	0.25	0.25	104	2.4/5, 9/2	100/ 100	2.3	.15				.15			all			30	14 ¹ / ₈ x9 ¹ / ₈ x5	33	Under 400										Dynaquad, hi & lo fltrs, remt. spkrs	
	S-9400	40	20-20	0.8	0.6	74	1.8/1.8	80/80	2.1	.20				.20			all			40	17 ¹ / ₈ x14x5 ¹ / ₈	29	Under 300										Dynaquad, hi & lo fltrs.	
SONY	TA8650	80	20-20	0.1	0.1	82	**	175/ 310/7	0.2	0.15	0.1	*	8	80	6 ¹ / ₈ x17 ³ / ₈ x16 ¹ / ₈	44 ¹ / ₂	1300.00																*Accepts high or low impedance phones. Phone output levels shown at 8 ohms. **2.5/4.5/0.1 (head amp). V-FET circuitry.	
	TA-1130	50	20-20	0.1	0.1	88	1.2/1.2	70/70	—	0.13	0.3	*	8	100	6x15 ¹ / ₈ x13	18 ¹ / ₂	430.00																*As above.	
	TA-4650	30	20-20	0.1	0.1	82	2.5/2.5	300/ 300	—	0.15	0.3	*	8	45	6 ¹ / ₈ x17x12 ¹ / ₂	25 ¹ / ₂	400.00																*As above. V-FET.	
	TA-1150	30	20-20	0.2	0.2	84	2.0/2.0	70/70	—	0.14	0.4	*	8	100	6x15 ¹ / ₈ x13	18 ¹ / ₂	280.00																*As above.	
	TA-1055	20	40-20	0.5	0.5	84	2.0/-	70/-	2.0	0.25	0.3	*	8	22	4 ¹ / ₈ x16x11	13 ¹ / ₂	210.00																*As above.	
	TA-1066	15	40-20	0.8	0.8	82	2.5/-	70/-	—	0.25	0.3	*	8	22	4 ¹ / ₈ x16x11	13 ¹ / ₂	170.00																*As above.	
	(B) TAN-8250	150	20-20	0.1	0.1	100	—	—	—	1.0	—	—	8	250	6 ¹ / ₈ x17 ³ / ₈ x16	55	1300.00																V-FET output.	
	(B) TAN-8550	100	20-20	0.1	0.1	100	—	—	—	1.0	—	—	8	200	6 ¹ / ₈ x17 ³ / ₈ x16	41 ¹ / ₂	1000.00																	
	(B) TA-3200F	100	20-20	0.1	0.1	110	—	—	—	1.4	—	—	8	170	6x15 ¹ / ₈ x12 ¹ / ₂	30 ¹ / ₂	400.00																	
(B) TA-3140F	35	20-20	0.1	0.1	110	—	—	—	0.85	—	—	8	100	6x8x12 ¹ / ₂	14 ¹ / ₂	200.00																		
STAX (DISCWASHER)	(B) DA-300	150*	DC- 150k	0.02	0.02	100 **													4-32	800	17x15x11	90	3600.00										*Class A; **Re high level input. Meters; stepped output atten.; 40-watt limiter.	
SUPERSCOPE	A-235	3	30-15	1.0	—			3	—	—	—	—	—	—								15x5x7	6 ¹ / ₂	89.95										
	A-245	8	20-30	1.0	—			2.5	—	—	—	—	—	—								15x5x7	8	119.95										
	A-260	12	20-40	1.0	—			2	—	—	—	—	—	—								15x5x12	15 ¹ / ₂	189.95										
TECHNICS BY PANASONIC	(B) SE-9600	110	20-20	0.08	0.08								1.0	4-16	*	*						17 ¹ / ₈ x16 ¹ / ₈ x8	52	799.95								Constant voltage and current power supply, fast response peak level power output meters with switchable ranges, thermo-sensitive output warning indicators. *Variable output impedance (damping factor).		
TOSHIBA	SB-500	25	50-20	0.4		65															20	15 ¹ / ₈ x12 ¹ / ₈ x5	16	249.95								Inc. equal. for capacitance pickup., mike mixing.		
	(Q) SB-404S	9	50-20	0.8	0.8																	20	15 ¹ / ₈ x12x5	16	299.95								Equal. for cap. pickup, decoder for SQ, QS.	
YAMAHA	B-1	150	20-20	0.1	0.1	—	—	—	—	—	—	—	—	—	—	—	—	—	4-16	100	18x15 ¹ / ₈ x6		1600.00										FET power output; separate on/off switches and level controls for 5 sets of spkrs. Meters. Opt. class A operation w/front panel switch; FET phono eq. amps; cont. var. loudness comp.; dual tape cts. *No load.	
	CA1000	70	20-20	0.1	0.1	80	3/3	310/ 310	2.5	0.12	25.3*	270	4-16	70	17 ¹ / ₈ x5 ¹ / ₈ x12 ¹ / ₂	34.2	600.00																Optional class A operation; Cont. var. loudness comp.; dual tape cts.; separable amp and preamp. *No load.	
	CA800	45	20-20	0.1	0.1	80	3/3	310/ 310	2.5	0.12	21*	270	4-16	70	17 ¹ / ₈ x5 ¹ / ₈ x12 ¹ / ₂	29.7	470.00																Cont. var. loudness cont.; dual tape cts.; separable amp and preamp. *No load.	
	CA600	30	20-20	0.1	0.1	80	3/3	310/ 310	2.5	0.12	17.9*	270	4-16	70	17 ¹ / ₈ x5 ¹ / ₈ x12 ¹ / ₂	24.2	330.00																*No load.	
	CA400	20	20-20	0.1		75	3/3	135/ 135	3.0	0.15	14.7*	270	4-16	50	17 ¹ / ₈ x5 ¹ / ₈ x12	17.6	270.00																	*No load.

October, 1975 This card expires December 31, 1975

A to help me make an immediate decision to purchase

18

A	B	A	R	A	B	A	B	A	B	A	B	A	B	A	B
1	16	31	46	61	76	91	106	121							
2	17	32	47	62	77	92	107	122							
3	18	33	48	63	78	93	108	123							
4	19	34	49	64	79	94	109	124							
5	20	35	50	65	80	95	110	125							
6	21	36	51	66	81	96	111	126							
7	22	37	52	67	82	97	112	127							
8	23	38	53	68	83	98	113	128							
9	24	39	54	69	84	99	114	129							
10	25	40	55	70	85	100	115	130							
11	26	41	56	71	86	101	116	131							
12	27	42	57	72	87	102	117	132							
13	28	43	58	73	88	103	118	133							
14	29	44	59	74	89	104	119	134							
15	30	45	60	75	90	105	120	135							

Name _____

Address _____

City _____ State _____ Zip _____

Phone number () -

Are you a subscriber to AUDIO Magazine? ☐ Yes ☐ No

READER INTEREST INFORMATION:

- 1 ☐ High Fidelity Enthusiast
2 ☐ Home Recordist
3 ☐ Professional Recordist
7 ☐ Other
- 4 ☐ Broadcast Engineer / Manager
5 ☐ Audio Service Technician
6 ☐ Audio Manufacturer or Dealer

I would like to see more ☐ Technical articles ☐ Articles for beginners

- ☐ Construction projects ☐ Articles on music
☐ Music reviews ☐ Classical ☐ Jazz ☐ Rock
☐ Other _____

I buy an average of _____ records a year Age _____

I have purchased the following equipment after seeing it advertised in AUDIO Magazine _____

I am planning to purchase the following equipment in the next year

Comments _____

Don't wait until your subscription runs out. Renew now and insure uninterrupted service. The remaining issues on your current subscription will be added. Postage will be paid.

Gentlemen: Please enter my subscription to AUDIO.

Name _____

Address

City _____ State _____ Zip _____

- ☐ New Subscription ☐ Payment Enclosed
☐ Renewal ☐ Bill me
☐ 3 Years—\$17 ☐ 2 Years—\$12 ☐ 1 Year—\$7
☐ (Foreign—\$23) ☐ (Foreign—\$16) ☐ (Foreign—\$9)

You may pay for your subscription on your credit card.

☐ American Express

Credit Card No. _____ ☐ Diners Club

☐ Master Charge

Card expires _____ Bank No. _____

Signature _____

For office use

loudspeaker loads. Each of the stages—Class-B output and Class-A drive—has independent power-supply sections to minimize intermodulation effects. And fully independent power-supplies for each channel maintain full wattage potential under large-signal drive conditions.

Similar considerations went into the design of the C-1000 preamplifier. Every parameter that contributes to sonic differences, subtle as well as obvious, was examined anew. Among them: phase linearity, rise time and small-signal overload. One result: the magnetic-phono input circuits are virtually overload-proof—accepting almost half a volt at 1000 Hz! Another: the phono-preamplifier circuits have astonishingly low distortion of 0.006%, and the rest of the preamplifier circuits add only 0.001% more.

The Luxman T-310 AM/FM stereo tuner has everything from calibrated Dolby circuits for decoding Dolbyized FM broadcast and tapes to variable AM muting. Among its typical specifications: an IHF-ratio sensitivity of 1.7 microvolts and an exceptional 2.2 microvolts for 50 dB of quieting. And special five-pole phase-compensating filters in the IF section contribute to a 1.5-dB capture ratio and exceptionally low distortion levels (0.1% mono, 0.12% in stereo).

Of course, it takes some technical knowledge to fully appreciate the design approaches described above. But only your ears are required to hear the end result. In either case, you may soon be among those who own one or more of the thirteen LUX power amplifiers, preamplifiers, integrated amplifiers or tuners. You'll

find them at a select number of dealers who are dedicated audiophiles themselves.



Luxman M-4000
Power Amplifier, \$1,495.

Luxman T-310
AM/FM Tuner,
\$595.

America, Ltd.

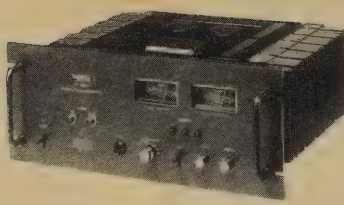
British Columbia: Gentronic Ltd., Quebec

er Service Card

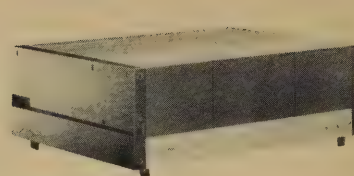
Amplifiers



Sansui BA-5000



Technics SE-9600



Yamaha B-1

MANUFACTURER	MODEL	FTC power chan., 8 ohms, watts		Freq. range for rated power, Hz - kHz		Highest THD from 0.25W to rated power, %		Highest IM from 0.25W to rated power, %		S/N phono, re 10 mV input, dB		Phono sensitivity, in mV, Phono 1, Phono 2		Phono overload, in mV, Phono 1, Phono 2		Mike input sens., mV		High level input, V		Headphone output level, V		Headphone load impedance		Output impedance, ohms		Damping factor, 1 kHz		Dimensions, in inches		Weight, lbs. (net)		Price, \$		NOTES
		Power	Power	Low	High	100 Hz	1 kHz	100 Hz	1 kHz	100 Hz	1 kHz	100 Hz	1 kHz	100 Hz	1 kHz	100 Hz	1 kHz	100 Hz	1 kHz	100 Hz	1 kHz	100 Hz	1 kHz	100 Hz	1 kHz	100 Hz	1 kHz	100 Hz	1 kHz	100 Hz	1 kHz	100 Hz		
SANSUI	(B) BA-5000	300	20-20	0.1	0.1									0.7						*	10	19x18 ³ / ₈ x8 ³ / ₈	108	1299.95								Power meters; 600W mono; *outputs at 4, 8, 16.		
	(B) BA-3000	170	20-20	0.05	0.05									0.7						4.8	100	18 ¹ / ₈ x15 ¹ / ₈ x7	49.8	899.95								Power meters, 340W mono.		
	AU-20000	170	20-20	0.05	0.05	70		**	350/350					0.13								18 ¹ / ₈ x15 ¹ / ₈ x7	49.8	999.95								Power meters; *Outputs at 4, 8, 16 ohms.		
	AU-11000	110	20-20	0.08	0.08	65		**	300/300					0.13						4.8		18 ¹ / ₈ x14 ¹ / ₈ x6 ¹ / ₈	42.5	749.95								**1.5, 3, 6/1.5, 3, 6 mV.		
	AU-9900	80	20-20	0.08	0.08	65		**	300/300					0.13						4.8		18 ¹ / ₈ x14 ¹ / ₈ x6 ¹ / ₈	39.7	599.95								**As above.		
	AU-7700	55	20-20	0.1	0.15	75	2.5/2.5		300/300					0.1/0.8					8	30	17 ¹ / ₈ x12 ³ / ₈ x5 ¹ / ₈	27.1	399.95											
	AU-6600	42	20-20	0.15	0.15	70	2.5		300/300					0.1/0.8					8	30	17 ¹ / ₈ x12 ³ / ₈ x5 ¹ / ₈	24.9	359.95											
	AU-5500	32	20-20	0.15	0.2	70	2.5	200						0.1/0.8					8	30	17 ¹ / ₈ x12 ³ / ₈ x5 ¹ / ₈	22.9	299.95											
	AU-4400	20	40-20	0.3	0.5	70	2.5	100	2.5	0.15				0.1/0.8					8	50	15 ¹ / ₈ x9 ¹ / ₈ x4 ¹ / ₈	13.9	199.95											
AU-2200	10	40-20	0.8	1.0	65	2.5	100	2.5	0.15				0.1/0.8					8	30	15 ¹ / ₈ x9 ¹ / ₈ x4 ¹ / ₈	12.1	149.95												
SCHOBBER	(B) TR-3D	70	5-40 ±.5	0.1	.07	85								.15-1.0*						4-16	28	5 ¹ / ₈ x11 ³ / ₈ x8	17 ¹ / ₂	240.00(K)								*Adjustable.		
	(B) TR-3M	70	5-40 ±.5	0.1	.07	85								.15-1.0*						4-16	28	5 ¹ / ₈ x11 ³ / ₈ x8	16 ¹ / ₂	176.00(K)								*Adjustable, mono.		
H. H. SCOTT	A236S	15	20-20	0.5	0.5	60	2.5	55					0.15			150	8		35	15 ¹ / ₈ x9 ¹ / ₈ x5 ¹ / ₈	12		159.95											
SHERWOOD	SEL-400	85	20-20	0.25	0.25	104	2.4/5.9/2	100/100	2.3	.15								all		30	14 ¹ / ₈ x9 ¹ / ₈ x5	33	Under 400									Dynaquad, hi & lo fltrs, remt. spkrs		
	S-9400	40	20-20	0.8	0.6	74	1.8/1.8	80/80	2.1	.20								all		40	17 ¹ / ₈ x14x5 ¹ / ₈	29	Under 300									Dynaquad, hi & lo fltrs.		
SONY	TA8650	80	20-20	0.1	0.1	82		**	175/810/7			0.2	0.15	0.1	*	8			80	6 ¹ / ₈ x17 ¹ / ₈ x16 ¹ / ₈	44 ¹ / ₂	1300.00										*Accepts high or low impedance phones. Phone output levels shown at 8 ohms.		
	TA-1130	50	20-20	0.1	0.1	88	1.2/1.2	70/70				0.13	0.3	*	8			100	6x15 ¹ / ₈ x13	18 ¹ / ₂	430.00												**2.5/4.5/0.1 (head amp). V-FET circuitry.	
	TA-4650	30	20-20	0.1	0.1	82	2.5/2.5	300/300				0.15	0.3	*	8			45	6 ¹ / ₈ x17x12 ¹ / ₈	25 ¹ / ₂	400.00											*As above.		
	TA-1150	30	20-20	0.2	0.2	84	2.0/2.0	70/70				0.14	0.4	*	8			100	6x15 ¹ / ₈ x13	18 ¹ / ₂	280.00											*As above.		
	TA-1055	20	40-20	0.5	0.5	84	2.0/-	70/-	2.0	0.25	0.3	*	8					22	4 ¹ / ₈ x16x11	13 ¹ / ₂	210.00											*As above.		
	TA-1066	15	40-20	0.8	0.8	82	2.5/-	70/-		0.25	0.3	*	8					22	4 ¹ / ₈ x16x11	13 ¹ / ₂	170.00											*As above.		
	(B) TAN-8250	150	20-20	0.1	0.1	100						1.0						8	250	6 ¹ / ₈ x17 ¹ / ₈ x16	55	1300.00										V-FET output.		
	(B) TAN-8550	100	20-20	0.1	0.1	100						1.0						8	200	6 ¹ / ₈ x17 ¹ / ₈ x16	41 ¹ / ₂	1000.00												
(B) TA-3200F	100	20-20	0.1	0.1	110						1.4						8	170	6x15 ¹ / ₈ x12 ¹ / ₈	30 ¹ / ₂	400.00													
(B) TA-3140F	35	20-20	0.1	0.1	110							0.85						8	100	6x8x12 ¹ / ₈	14 ¹ / ₂	200.00												
STAX (DISCWASHER)	(B) DA-300	150*	DC-150k	0.02	0.02	100**													4-32	800	17x15x11	90	3600.00										*Class A; **Re high level input. Meters; stepped output atten.; 40-watt limiter.	
SUPERSCOPE	A-235	3	30-15	1.0	-			3														15x5x7	6 ¹ / ₂	89.95										
	A-245	8	20-30	1.0	-			2.5														15x5x7	8	119.95										
	A-260	12	20-40	1.0	-			2														15x5x12	15 ¹ / ₂	189.95										
TECHNICS BY PANASONIC	(B) SE-9600	110	20-20	0.08	0.08								1.0					4-16	*	*		17 ¹ / ₈ x16 ¹ / ₈ x8	52	799.95								Constant voltage and current power supply, fast response peak level power output meters with switchable ranges, thermo-sensitive output warning indicators. *Variable output impedance (damping factor).		
TOSHIBA	SB-500	25	50-20	0.4		65															20	15 ¹ / ₈ x12 ¹ / ₈ x5	16	249.95								Inc. equal. for capacitance pickup, mike mixing.		
	(Q) SB-404S	9	50-20	0.8	0.8																20	15 ¹ / ₈ x12x5	16	299.95								Equal. for cap. pickup, decoder for SQ, QS.		
YAMAHA	B-1	150	20-20	0.1	0.1	-													4-16	100	18x15 ¹ / ₈ x6		1600.00									FET power output; separate on/off switches and level controls for 5 sets of spkrs. Meters.		
	CA1000	70	20-20	0.1	0.1	80	3/3	310/310	2.5	0.12	25.3*	270	4-16	70	17 ¹ / ₈ x5 ¹ / ₈ x12 ¹ / ₈	34.2	600.00																Opt. class A operation w/front panel switch; FET phono eq. amps; cont. var. loudness comp.; dual tape cts. *No load.	
	CA800	45	20-20	0.1	0.1	80	3/3	310/310	2.5	0.12	21*	270	4-16	70	17 ¹ / ₈ x5 ¹ / ₈ x12 ¹ / ₈	29.7	470.00																Optional class A operation; Cont. var. loudness comp.; dual tape cts.; separable amp and preamp. *No load.	
	CA600	30	20-20	0.1	0.1	80	3/3	310/310	2.5	0.12	17.9*	270	4-16	70	17 ¹ / ₈ x5 ¹ / ₈ x12 ¹ / ₈	24.2	330.00																Cont. var. loudness cont.; dual tape cts.; separable amp and preamp. *No load.	
	CA400	20	20-20	0.1		75	3/3	135/135	3.0	0.15	14.7*	270	4-16	50	17 ¹ / ₈ x5 ¹ / ₈ x12	17.6	270.00																*No load.	

READER INQUIRY CARD

October, 1975 This card expires December 31, 1975

CHECK BOX A or B beside each coupon number

A to help me make an immediate decision to purchase

B to explore a new method or to keep my files on the subject to date.

==	A	B	==	A	B	==	A	B	==	A	B	==	A	B	==	A	B	==	A	B	==	A	B			
1			16			31			46			61			76			91			106			121		
2			17			32			47			62			77			92			107			122		
3			18			33			48			63			78			93			108			123		
4			19			34			49			64			79			94			109			124		
5			20			35			50			65			80			95			110			125		
6			21			36			51			66			81			96			111			126		
7			22			37			52			67			82			97			112			127		
8			23			38			53			68			83			98			113			128		
9			24			39			54			69			84			99			114			129		
10			25			40			55			70			85			100			115			130		
11			26			41			56			71			86			101			116			131		
12			27			42			57			72			87			102			117			132		
13			28			43			58			73			88			103			118			133		
14			29			44			59			74			89			104			119			134		
15			30			45			60			75			90			105			120			135		

Name _____

Address _____

City _____ State _____ Zip _____

Phone number (_____) _____

Are you a subscriber to AUDIO Magazine? ☐ Yes ☐ No

READER INTEREST INFORMATION:

1 ☐ High Fidelity Enthusiast

2 ☐ Home Recordist

3 ☐ Professional Recordist

7 ☐ Other _____

4 ☐ Broadcast Engineer / Manager

5 ☐ Audio Service Technician

6 ☐ Audio Manufacturer or Dealer

I would like to see more ☐ Technical articles ☐ Articles for beginners

☐ Construction projects ☐ Articles on music

☐ Music reviews ☐ Classical ☐ Jazz ☐ Rock

☐ Other _____

I buy an average of _____ records a year Age _____

I have purchased the following equipment after seeing it advertised in AUDIO Magazine _____

I am planning to purchase the following equipment in the next year _____

Comments _____

SUBSCRIBE

Don't wait until your subscription runs out. Renew now and insure uninterrupted service. The remaining issues on your current subscription will be added. Postage will be paid.

Gentlemen: Please enter my subscription to AUDIO.

Name _____

Address _____

City _____ State _____ Zip _____

☐ New Subscription

☐ Renewal

☐ 3 Years—\$17

☐ (Foreign—\$23)

☐ 2 Years—\$12

☐ (Foreign—\$16)

☐ 1 Year—\$7

☐ (Foreign—\$9)

☐ Payment Enclosed

☐ Bill me

You may pay for your subscription on your credit card.

☐ American Express

Credit Card No. _____ ☐ Diners Club

☐ Master Charge

Card expires _____ Bank No. _____

Signature _____

BUSINESS REPLY MAIL

No Postage Necessary if Mailed in the United States

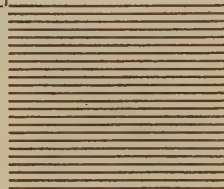
POSTAGE WILL BE PAID BY:

AUDIO

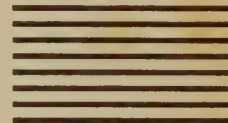
134 North Thirteenth St.
Philadelphia, Pa. 19107

SUBSCRIPTION ORDER CARD Fill in other side to order a new subscription

FIRST CLASS
Permit No. 22,489
Philadelphia, Pa.



FIRST CLASS
Permit No. 22,489
Philadelphia, Pa.



BUSINESS REPLY MAIL—No Postage Necessary if Mailed in the United States

Postage will be paid by

Audio Magazine
P.O. Box 13892
Philadelphia, Pa. 19101

READER INQUIRY CARD

Fill in other side to get more information on advertised products

LUX offers three good reasons for the growing movement toward separate amplifiers and tuners.

Possibly the highest acclaim a receiver can be awarded is to have one or more of its elements compared favorably with its equivalent in a separate tuner, preamplifier, or power amplifier. Nevertheless, for most music lovers, a good receiver more than fulfills their requirements. But for a growing number of dedicated audiophiles, who are seeking the ultimate in music reproduction, nothing but separates will do.

They know what kind of power it takes to reproduce music's original wide dynamic range and high levels without peak clipping or distortion. (A barely detectable 3-dB increase in output level requires double the amplifier power.) A very powerful amplifier must have massive power-supply components to be able to deliver the large amounts of current demanded by high-level output circuits. The size and weight of the power transformers alone means receivers must leave off well below where really high power begins.

For those who want to hear their music at realistic sound levels, LUX audiophile engineers have designed products such as the M-4000 power amplifier. This unit is capable of 180 watts per channel, and even with both channels driven simultaneously to full output into 8-ohm loads, each channel has no more than 0.05% harmonic and intermodulation distortion at any frequency from 20 to 20,000 Hz.

Sophisticated protection circuits react to the electronically-subtle differences between normal high-level audio signals and abnormal voltage/current conditions. Hence, the M-4000 won't be fooled into producing unpredictable and audible distortions when operating with certain reactive

loudspeaker loads. Each of the stages—Class-B output and Class-A drive—has independent power-supply sections to minimize intermodulation effects. And fully independent power-supplies for each channel maintain full wattage potential under large-signal drive conditions.

Similar considerations went into the design of the C-1000 preamplifier. Every parameter that contributes to sonic differences, subtle as well as obvious, was examined anew. Among them: phase linearity, rise time and small-signal overload. One result: the magnetic-phono input circuits are virtually overload-proof—accepting almost half a volt at 1000 Hz! Another: the phono-preamplifier circuits have astonishingly low distortion of 0.006%, and the rest of the preamplifier circuits add only 0.001% more.

The Luxman T-310 AM/FM stereo tuner has everything from calibrated Dolby circuits for decoding Dolbyized FM broadcast and tapes to variable AM muting. Among its typical specifications: an IHF-ratio sensitivity of 1.7 microvolts and an exceptional 2.2 microvolts for 50 dB of quieting. And special five-pole phase-compensating filters in the IF section contribute to a 1.5-dB capture ratio and exceptionally low distortion levels (0.1% mono, 0.12% in stereo).

Of course, it takes some technical knowledge to fully appreciate the design approaches described above. But only your ears are required to hear the end result. In either case, you may soon be among those who own one or more of the thirteen LUX power amplifiers, preamplifiers, integrated amplifiers or tuners. You'll

find them at a select number of dealers who are dedicated audiophiles themselves.

Luxman C-1000
Preamplifier,
\$895.

Luxman M-4000
Power Amplifier, \$1,495.

Luxman T-310
AM/FM Tuner,
\$595.



Dolby is a trademark of Dolby Laboratories, Inc.

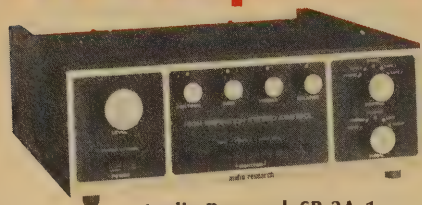
LUX Audio of America, Ltd.

200 Aerial Way, Syosset, New York 11791

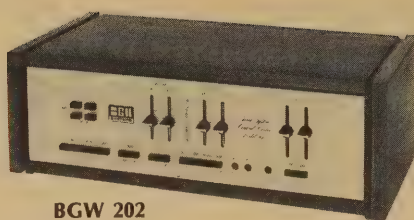
In Canada: AMX Sound Corp. Ltd., British Columbia; Gentronic Ltd., Quebec

Check No. 34 on Reader Service Card

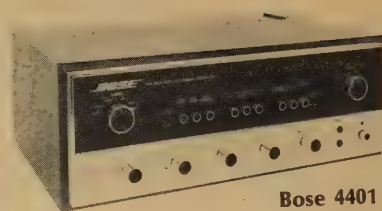
Pre-Amplifiers



Audio Research SP-3A-1

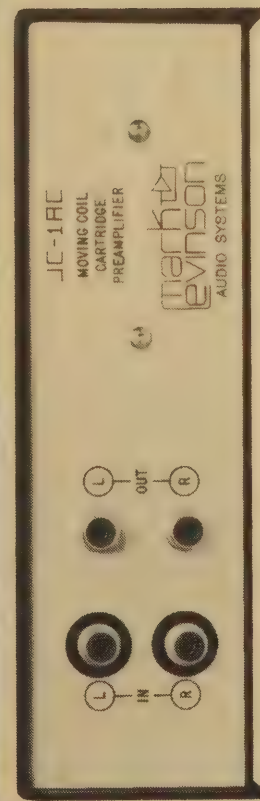
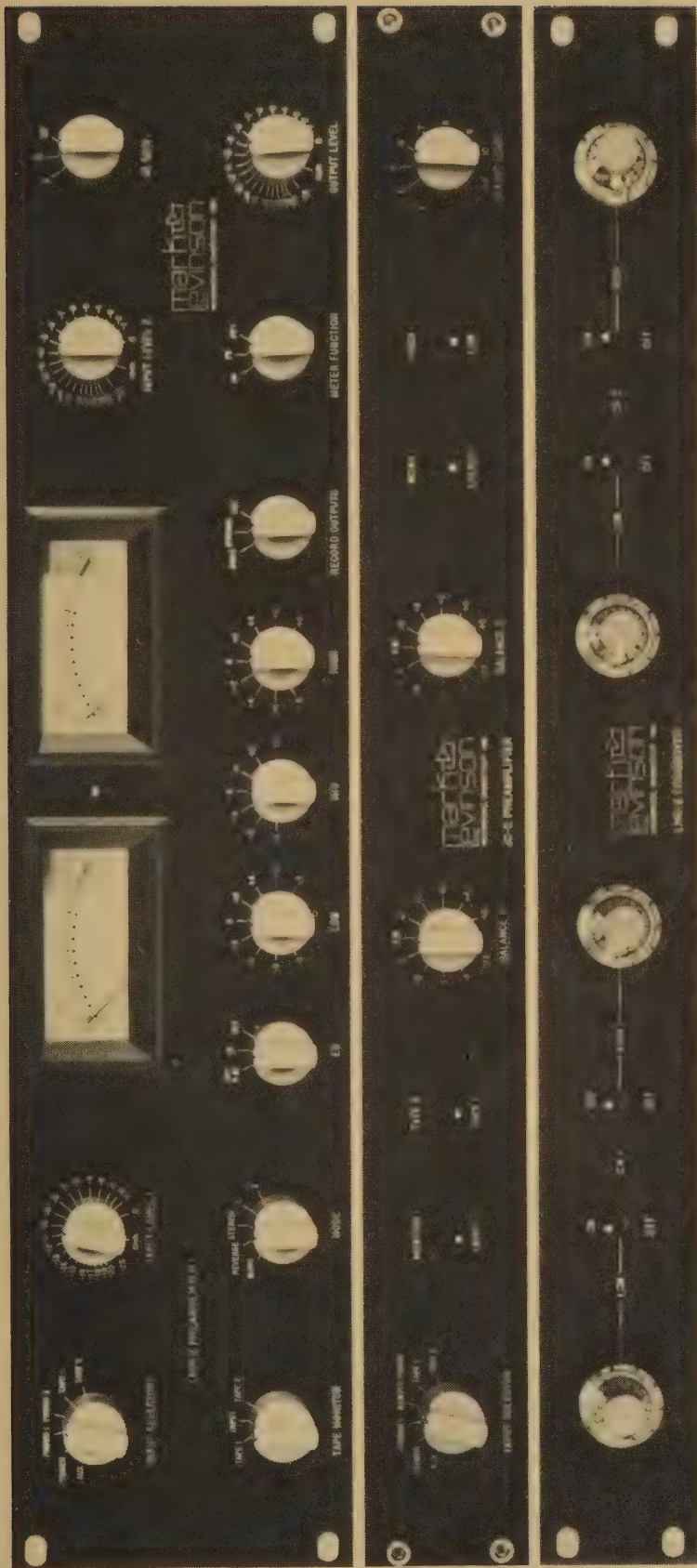


BGW 202



Bose 4401

MANUFACTURER	MODEL	Frequency response Hz - kHz, ± 2 dB	Rated output, V	THD at rated output, %	IM at rated output, %	S/N ratio, phono, dB re 10 mV input	Phono sens., mV, phono 1/phono 2	Phono overload, mV, phono 1/phono 2	Mike input sens., mV	High-level sens., V	Tape mon. impedance, ohms	Tape mon. output level, V	Dimensions, in.	Weight, lbs.	Price, \$	NOTES
ACCUHASE	L-200	20-20 ± 0.2	2.0				2/6		.20		200	0.2	18x6x14	31	600.00	
ACE AUDIO CO.	BSP	20-20 ± 1	2	.05	.05	70	2.2	250		.1	50k	.2	11x8x3	3	136.00(W) 82.50(K)	High-gain model.
	ZDP	0-67 +0-3	1	0	0	76	10.0	110		1.0	50k	.1	11x8x3	3	109.75(W) 82.50(K)	Low-gain model; no tone controls.
AUDIO RESEARCH	(T) SP-3A-1	10-30 ± 1	5	.005*	.008*	66**	6.5/6.5	300/300		.35	100k	.35	15 $\frac{1}{2}$ x5 $\frac{1}{2}$ x12 $\frac{1}{2}$	14	695.00	*W/tone controls out.
	CA-1	10-30 ± 1	10	.001	.001	110		*300					8x3x6	4	395.00	**Unweighted. Cartridge preamp (head amp). *30 dB gain.
BGW SYSTEMS	202	20-20 ± 0.5	4	.01	.01	82	1.5/1.5	100/100	—	0.2	600	10	5 $\frac{1}{4}$ x10 $\frac{1}{2}$ x19	20	569.00	Rack mount.
	201	20-20 ± 0.5	4	.01	.01	82	1.5/1.5	100/100	—	0.2	600	10	5 $\frac{1}{4}$ x10 $\frac{1}{2}$ x19	20	399.00	Rack mount.
BOSE	(Q) 4401	20-20 ± 0.2	2	0.2	0.2	86*	2.0/2.0	70/70		0.2			18x6x13	12	599.00	Provision for 3 built-in 4-chan. decoders: SQ decoder \$74.95, CD-4 decoder remote control, available. *A weighted
BOZAK	919	20-20 ± 0.25	10*	0.1	0.1	74**	2/2	250/250	0.3	.075	10k	#	17 $\frac{1}{2}$ x10 $\frac{1}{2}$ x7	21	797.00	*Across 200 ohms. **ref. to 10V output. #80mV nominal, max.=4V
C/M LABS	CC3	2-80 ± 0.5	2	.05	.02	80	1.6/6.4*	100		0.2	250k	.25	19x5 $\frac{1}{4}$ x9	12	450.00	*Adjustable.
CROWN	IC-150	10-20 ± 1	10	0.05	0.01	90	0.8-8*	33-330*		0.22	600		17x8 $\frac{1}{2}$ x5 $\frac{1}{4}$	10	349.00	*Adjustable, walnut cabinet optional
DAYTON-WRIGHT	SPSMK3	7-250* ± 1	1.5	.005	.002	80	0.004	130		0.6	10k	0.6	6x10x6 $\frac{1}{2}$	7	430.75	No tone controls. *Phono input response.
	SPL	7-500* ± 1.5	1.5	.005	.002	70	.03/1.5	**		0.6	10k	0.6	13x10x6 $\frac{1}{2}$	13	882.00	No tone controls. *As above.
	DIV-535	9-500 ± 1.5	.01	.002	.002	70	.03	**					2x10x7		392.50	**2.5/130, cont. adjustable. Pre-amplifier (head amp) for moving cartridges. **As above.
DUNLAP CLARKE	10	5-200 ± 3	4	0.05	0.05	95	1.0	180		0.2	600		19x3 $\frac{1}{2}$ x12	12	599.00	Rack mount; walnut case, \$40.00
DYNACO	PAT-5	10-50 ± 1	2	.05	.05	70	2.7/2.7	100	2.0	.2	15k	.2	13 $\frac{1}{2}$ x11 $\frac{1}{2}$ x4 $\frac{1}{2}$	13	325.00	Kit: \$199.00
	PAT-4	10-100 ± 5	2	.05	.05	70	4.0	80	4.0	.2	600	.2	13 $\frac{1}{2}$ x9x4 $\frac{1}{2}$	10	199.00	Kit: \$119.00
	(T) PAS-3X	10-40 ± 5	2	.05	.05	70	2.0	250	2.0	.2	47k	.2	13 $\frac{1}{2}$ x9x4 $\frac{1}{2}$	11	129.00(K)	Avail. only as kit.
EPI	TWO		5	.005	.005	86	1.8	150	2	0.25	600	0.25	18 $\frac{1}{2}$ x17 $\frac{1}{2}$ x7 $\frac{1}{2}$	47	2000.00	
	FOUR		5	.005	.005	82	1.8	150	—	0.25	600	0.25	18 $\frac{1}{2}$ x11x5 $\frac{1}{4}$	14	349.00	
GREAT AMERICAN SOUND	Thaetra	20-20 ± 1	2	.01	.01	86	1.5/06*	100/3		.18	600	.1	17x5 $\frac{1}{2}$ x12	35	799.00	*Incl. servo head amp for moving-coil pickups.
	Thoebe	20-20 ± 1	2	.01	.01	86	1.5	100		.18	600	.1	17x5 $\frac{1}{2}$ x10	25	369.00	
KENWOOD	700C	20-20	1.5	0.04	0.04	76	2.5/2.5	400/400	2.5	0.15	100k	.150	17 $\frac{1}{2}$ x5 $\frac{1}{2}$ x11 $\frac{1}{2}$	21	649.95	
LUXMAN	C-1000	2-80 ± 0.5	2	.007		65	2.5/2.5	450/450		0.15			19x10x7	22	895.00	Touch muting.
	CL-350	10-50 ± 1.0	2	.02		63	2.0/2.0	300/300		0.11			19x10x7	19	495.00	Low freq. trimmer.
MARANTZ	3800	20-20 ± 25	3	.02	.01	82	3	100	3	.3	150	3	15 $\frac{1}{4}$ x5 $\frac{1}{2}$ x12 $\frac{1}{2}$	16	599.95	Incl. Dolby.
	3600	20-20 ± 25	3	.02	.01	82	3	100	3	.3	150	3	15 $\frac{1}{4}$ x5 $\frac{1}{2}$ x12 $\frac{1}{2}$	15	499.95	
	3200	20-20 ± 5	3	.05	.05	76	1.8	200		.18	600	3	14 $\frac{1}{8}$ x4 $\frac{1}{2}$ x10 $\frac{1}{2}$	12	219.95	



LNP-2 Professional Preamplifier for studio and laboratory applications \$2250.

JC-2 Straightline Preamplifier the most elegant signal throughput \$1050.

LNC-2 Crossover preserves the subtleties of the best source material \$1250.

JC-1AC Line Powered Head Amp with 3 gain settings, channel balancing, and selectable cartridge resonance compensation \$255.

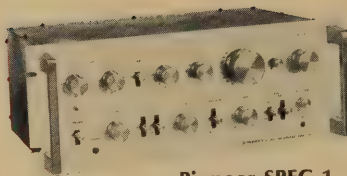
Mark Levinson Audio Systems is dedicated to the design and production of the finest possible audio components. Each product is assembled and tested by a group of specially trained men and women who understand the critical importance of precision work. Our proprietary circuits, finely tuned to maximum potential, work only with close tolerance parts and many hand-selected devices. We use the least expensive parts which do not compromise sonic quality or product reliability. Unfortunately, such parts are often five to twenty times the cost of conventional ones. This is, however, what state of the art is all about.

We invite you to learn more about our products. Some of our dealers will let you evaluate the components on this page in your home system. If there is no authorized Mark Levinson dealer near you, write us for a referral. Or, call (203) 281-6333 and ask for Tim Lowery if you have any questions. Literature describing all our products is available for one dollar.

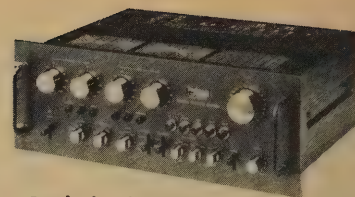
Pre-Amplifiers



Phase Linear 4000



Pioneer SPEC 1



Technics SU-9600

MANUFACTURER	MODEL	Frequency response Hz - 20KHz ± 2 dB	Rated output, V	THD at rated output, %	IM at rated output, %	S/N ratio, phono, dB re 10 mV input	Phono sens., mV, phono 1/phono 2	Phono overload, mV, phono 1/phono 2	Mike input sens., mV	High-level sens., V	Tape mon. impedance, ohms	Tape mon. output level, V	Dimensions, in.	Weight, lbs.	Price, \$	NOTES All models solid-state except where model no. is preceded by (T). (K) indicates kit price; (W) wired. (Q) with mod. no. indicates quad.
MARK LEVINSON AUDIO	LNP-2														2250.00	Complete specifications available from factory. As above.
	JC-2														1050.00	
NAIM (AUDIOPHILE SYSTEMS)	NAC 12	20-20 ± 0.5	1	0.02	0.02	65	2					12x5 $\frac{1}{2}$ x4 $\frac{1}{4}$	3	399.00		Optional phono board for moving coil p.u.
PHASE LINEAR	4000	20-20 ± 1	8	.25	.25	72	2/2	85/85	0.2	3k	.2V	19x7x10	18	599.00		
	2000	20-20 ± 1	8	.1	.1	74	2.5	85	0.2	3k	.2V	19x5 $\frac{1}{2}$ x6	7	299.00		
PHILIPS	SC102A	2-80 ± 1	2	.05	.02	80	*	250	—	.12	50k	.12	12 $\frac{1}{2}$ x4x9	6	299.50	*Phono sens. variable: 1.4-5V. Incl. opto-mute protect circuit.
PIONEER	SPEC-1	10-70 ± 0.5	2/7	0.05/0.1	—	70	2.5/10	500/1000	2.5	0.15	2200	0.15	18 $\frac{7}{8}$ x7x16 $\frac{3}{8}$	—	499.95	
	QC-800A(Q)	10-70 ± 1	2.5	0.05	—	80	2.5/2.5	—	—	0.15	—	0.15	16x5 $\frac{1}{2}$ x13 $\frac{1}{4}$	16 $\frac{3}{4}$	279.95	RM, SQ decoders.
QUINTESSENCE	Preamplifier I	9-80 ± 0.25	7	0.01	0.01	72	14	165			10k	10	11x14x4	10	500.00	
RADFORD (AUDIONICS)	2D22	20-20 ± 1	1			90	1.5	270	—	0.1			17x4 $\frac{1}{2}$ x10	12	499.00	
REVOX	A720	20-20 ± 1	1.5	0.1		65	3/9*	30	*		100k	0.2	19 $\frac{1}{2}$ x12 $\frac{1}{2}$ x6 $\frac{1}{2}$	30	1665.00	Tuner-preamplifier-control unit. Tuner frequency-synthesized digital. *Phono input level sens. adjustable. High level sens. adjustable 0.1 to 1.0V.
SAE	1B	10-100 ± 0.25	2.5	0.02	0.02	80	2	100	—	0.25	500	0.25	17x5 $\frac{1}{2}$ x10 $\frac{1}{2}$	15	825.00	7-band eq. with tape eq.; fixed resistor volume control. Connections for external eq.; NAB standard VU meters. 7-band eq. with graphic display; front panel tape dubbing.
	1M	10-100 ± 0.25	2.5	0.02	0.02	80	2	100	—	0.25	500	0.25	17x5 $\frac{1}{2}$ x10 $\frac{1}{2}$	15	660.00	
	9B	10-100 ± 0.25	2.5	0.02	0.02	80	2	100	—	0.25	500	0.25	17x5 $\frac{1}{2}$ x7	11	500.00	
	30	10-100 ± 0.25	2.5	0.03	0.03	72	3.1	100	—	0.40	500	0.40	15x4 $\frac{1}{2}$ x8	7	200.00	
SANSUI	CA-3000	10-10	1.3	0.03	0.03	70	*	1000		0.13		0.13	18 $\frac{1}{8}$ x14 $\frac{1}{8}$ x7 $\frac{1}{8}$	29.3	699.00	2 meters. *1.5, 3, 6/1.5, 3, 6 mV.
SONY	TAE-8450	10-100 ± 0.1	1.0	0.03	0.05	86	*	**	0.16	0.15	1k	0.15	6 $\frac{1}{2}$ x17 $\frac{1}{2}$ x13 $\frac{1}{4}$	26	1300.00	*Switchable: phono 1, 1.5/4.5/0.16; phono 2, 1.5/4.5/0.16; **Switchable: phono 1, 140/400; phono 2, 140/400/13. *Switchable: 1.2/0.006/1.2. **Switchable 300/15/300.
	TA-2000F	10-100 ± 0.2	1.0	0.03	0.05	88	*	**	0.5	0.11	10k	0.1	6x15 $\frac{1}{2}$ x12 $\frac{1}{2}$	19 $\frac{1}{4}$	580.00	
SOUNDCRAFTSMEN	PE 2217	5-100 ± 25	7	0.01	0.01	84	1.0/1.0	105/105	—	0.1	600	*	20x7 $\frac{1}{4}$ x11 $\frac{1}{2}$	28	499.50	*0.1 to 2. Two separate 10-octave equalizers. Two LED balancing circuits. 4 independent phono pre-amps. Double dubbing 100 dB S/N. Includes case or rack mounts.
STAX (DISC WASHER)	SRA-12S	10-60 $\pm 1\frac{1}{2}$	12	0.02	0.18	90	0.8/—	200/—		0.250			7x5x12	7	500.00	All direct-coupled FET; drives 2 Stax phones.
TECHNICS BY PANASONIC	SU-9600	2-100 $\pm .25$	1*	0.02	0.02	73	2/1-3	**		0.1		0.1	7x17 $\frac{1}{2}$ x14 $\frac{1}{2}$	23 $\frac{1}{2}$	629.95	*12V max. **900/450 to 1350 mV.
YAMAHA	C-1	10-50 ± 0.2	.775	0.02	0.02		2/8	800/—	2.0	0.2	1000	.15	18 $\frac{1}{8}$ x15 $\frac{1}{8}$ x6 $\frac{1}{8}$	28 $\frac{1}{2}$	1800.00	All FET; built-in generator gives 4 sine waves, pink noise; peak-read mtrs.; 30dB atten.; mtrs. & gen. may be used external.

THE STAX LEGEND IS GROWING.

SRA 125 A new linear-coupled all FET pre-amp which also drives Stax headphones directly. State of the art for \$500.00.

SRX III Electrostatic headphone system for \$230.00. Ultimate musical definition driven by any 50 watt/ch power amp. Headphones without SRD-7 adaptor are available separately for direct Stax preamp coupling.

DA-300 Amplification that was only a dream until now. The world's finest power amp. Ask anyone who has heard it on the world's finest speakers. 150 watts RMS/ch pure class A power. Large, heavy, full features and protection circuits. \$3,600.00



Other available Stax products are the UA7 precision-damped tonarm (\$190.00) and SR5 electrostatic headphone system (\$135.00).

See your franchised American Audioport dealer.

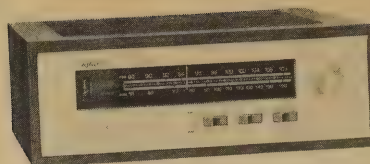


American Audioport Inc.
999 University Ave., Columbia, Mo. 65201

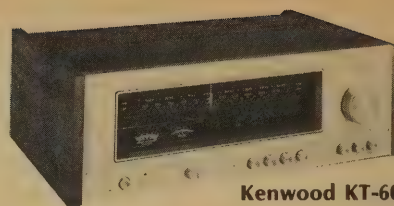
Tuners



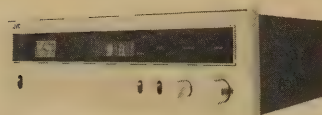
Accuphase T-101



Dynaco AF-6



Kenwood KT-6007



JVC VT-900



Pioneer TX-9500

MANUFACTURER	Model	IHF sensitivity, μ V, mono/stereo	Capture ratio, dB	Alt. chain selectivity, dB	AM suppress., IHF, dB	Signal for 50 dB quieting (μ V), mono/stereo	Stereo sep., 1 kHz, dB	Stereo sep., 10 kHz, dB	THD, mono, 100% mod, 1 kHz	THD stereo, 100% mod, 1 kHz	Tuning indicator(s) type, how many	S/N ratio, max., at 200 μ V, mono/stereo, dB	Max. output level, V	De-emphasis (μ S)	Dimensions, in.	Weight, lbs.	Price, \$	NOTES
ACCUPHASE	T-100	2.0/-	1.5	70	60	4.5/45	45	30	0.1	0.2	3 Mtrs.	75/-*	2		18x6x14	14	650.00	*S/N @ 200 μ V.
	(F) T-101	2.0/-	2.0	55	55	4.5/45	45	30	0.1	0.2	2 Mtrs.	70/-*	2		18x6x14	25	450.00	* As above.
CAMBRIDGE (CM LABS)	T75X	1.8/4.8	.5	90	90	6/30	34	30	.3	.5	2 lights	70/65	2	75	16 $\frac{1}{2}$ x2x9 $\frac{1}{2}$	7 $\frac{1}{2}$	450.00	
DYNACO	AF-6	1.75	1.5	65	58	5.0	40	30	0.5	0.9	Mtr.*	65/-	2	75	13 $\frac{1}{2}$ x12x4 $\frac{1}{4}$	13	350.00	Kit, \$240.00. *Dynatune automatic-
	(F) FM-5	1.75	1.5	65	58	5.0	40	30	0.5	0.9	Mtr.*	65/-	2	75	13 $\frac{1}{2}$ x9x4 $\frac{1}{4}$	11	289.00	tically tunes to point of min. distortion. Kit, \$185.00. *As above.
HEATH	(F) AJ-1510A	1.8/3.8	1.5	95	60	2.4/30	40	30	0.3	0.35	*	65/62.	1.0	75	16 $\frac{1}{2}$ x14 $\frac{1}{2}$ x6	15 $\frac{1}{2}$	579.95(K)	*Crystal-controlled PLL tuning; 4-
	(F) AJ-15	1.8/-	1.5	70	50	2.8/-	40	25	0.5	1.0	2 Mtrs.	65/60	1.5	75	16 $\frac{1}{2}$ x12 $\frac{1}{2}$ x4 $\frac{1}{4}$	11 $\frac{1}{2}$	249.95(K)	digit readout, plus 1 meter. Preas-
	AJ-29	1.8/-	1.5	70	50	3/-	40	30	0.5	0.5	2 Mtrs.	60/58	1.0	75	16 $\frac{1}{2}$ x13x5	14 $\frac{1}{2}$	199.95(K)	sembled FET FM front-end, crystal fil-
	AJ-1214	2.0/-	2.0	60	50		35		0.5	0.75		60/55	1.0	75	13x11x3 $\frac{1}{2}$	7 $\frac{1}{2}$	109.95(K)	ters, noise-operated squelch, stereo-
JVC	VT-900	1.7/-	0.8	70	55		38	25	0.3	0.5	*	70/-	1.0	75	5 $\frac{1}{2}$ x16 $\frac{1}{2}$ x12 $\frac{1}{2}$	19 $\frac{1}{2}$	399.95	only switch, 2-stereo phone jacks w/level controls. Modular construction, preas-
KENWOOD	700T	1.8/-	1.3	100	65		45	35	0.15	0.25	Mtr.		1.5	75	17 $\frac{1}{2}$ x5 $\frac{1}{2}$ x11 $\frac{1}{2}$	29.5	749.95	sembled FM front-end with FET RF, 9-
	KT-8007	1.5/-	1	100	65		47	38	0.15	0.2	2 Mtrs.		1.5	75	17x6 $\frac{1}{2}$ x11 $\frac{1}{2}$	19.6	419.95	pole L-C filter, 3 FM i.f. IC's, AM with
	KT-6007	1.7/-	1.3	70	58		45	38	0.15	0.2	2 Mtrs.		1.5	75	17x6 $\frac{1}{2}$ x11 $\frac{1}{2}$	19.1	319.95	adjustable rod antenna. Preassembled
	KT-4007	2/-	2	60	55		40	30	0.2	0.4	2 Mtrs.		1.5	75	17x6 $\frac{1}{2}$ x11 $\frac{1}{2}$	229.95	FM front-end with FET r.f., ceramic	
	KT-1300G	3/-	3	41	50		30	30	0.8	1	Mtr.		1	75	14 $\frac{1}{2}$ x5x10	7.6	139.95	filters, PLL MPX.
LAFAYETTE	LT-D10	1.5/-	1.5	70	60	2/20	40	25	0.2	0.3	2 Mtrs.	65/63	1.1	25/75	15 $\frac{1}{2}$ x3 $\frac{1}{2}$ x9 $\frac{1}{8}$	11 $\frac{1}{2}$	269.95	
	LT-825	2.2/-	2.5	40	50	3/30	35	15	0.25	0.6	Mtr.	65/60	1	75	12 $\frac{1}{2}$ x3 $\frac{1}{2}$ x9 $\frac{1}{8}$	10	149.95	
LEAK (ERCONA)	2300	1.6/-	1.5	50	50		35	30	0.5	0.5		65/-			16 $\frac{1}{2}$ x12x5 $\frac{1}{2}$	13	495.00	
LUXMAN	T-310	1.7/-	1.5	75	53	2.2/-	42	30	0.1	0.2	2 Mtrs.	75/-	0.4	75/25	19x7x12		595.00	Includes Dolby. Output level variable.
	(F) T-110	1.6/-	1.3	75	53	2.1/-	48	35	0.08	0.08	2 mtrs.	78/-	0-1.5	75	19x5x12		525.00	
	T-300	1.7/-	1.5	75	53	2.2/-	42	30	0.1	0.2	2 Mtrs.	75/-	0.4	75	19x7x12		495.00	
	T-550	1.8/-	1.3	70	53	2.3/-	40	30	0.3	0.4	2 Mtrs.	70/-	1.5	75	18x7x11		325.00	
MARANTZ	150	1.7	1	85	65	3/50	45		.15	.3	Scope	75/66	1.7	75/25	15 $\frac{1}{2}$ x5 $\frac{1}{2}$ x11 $\frac{1}{2}$	26	599.95	
	125	1.8	1.1	80	63	5/50	42	29	.2	.3	2 Mtrs.	73/65	1.7	75/25	15 $\frac{1}{2}$ x5 $\frac{1}{2}$ x11 $\frac{1}{2}$	17	339.95	
	112	2.2	1.5	65	60	5/50	40		.3	.5	Mtr.	70/64	1.7	75/25	16 $\frac{1}{2}$ x4 $\frac{3}{4}$ x11	14	219.95	
	104		2.5	48	55	10/-	40	26	.6	.8	Mtr.		1.7	75	16 $\frac{1}{2}$ x4 $\frac{3}{4}$ x11		169.95	
McKAY DYMEK	AM-5	3.0		50	*	*	*	*	0.5		Mtr.	55	1.0		19x3 $\frac{1}{2}$ x10	12	255.00	*AM tuner, -3 dB 15 to 10,000 Hz; i.f. rejection 45dB; bandwidth: narrow, 6 kHz; wide, 20 kHz. Tuneable, directional, shielded antenna w/two-stage FET-transistorized preamp. Frequency synthesizing AM/short wave tuner, 3.0 to 22 MHz, incl. 2-watt amplifier, spkr., tuner output.
	DA-3																155.00	
	DR-22	2.0		50							Mtr.	55	1.0		14x3 $\frac{1}{2}$ x10	15	350.00	
NIKKO	FAM-800	1.8	1.0	80	55		40		0.2	0.4	2 Mtrs.	-70	1		18x6x14	16 $\frac{1}{2}$	259.95	
	FAM-500	2.0	2.0	50			38			0.5	2 Mtrs.	-60	1		15x9x13	12	179.95	
ONKYO	T-4055	1.7/-	1.2	80	55		40	35	0.2	0.5	2 Mtrs.	70/-	2	75	16 $\frac{1}{2}$ x5 $\frac{1}{2}$ x14	20	219.95	

The Sansui No.1 Line

Models 221, 331, 551, 661, 771, and 881



Each Number 1 in its class

You are looking up to the finest stereo receivers today's technology can produce. Each a leader in its class. From the 8 and 12 watts per channel minimum RMS into 8 Ohms load from 40 Hz to 20 kHz with no more than 1.0% total harmonic distortion for the new Sansui 221 and 331 to the 63 watts per channel, minimum RMS into 8 Ohms from 20 Hz to 20 kHz with no more than 0.3% total harmonic distortion for the full-feature top of the line Sansui 881. From \$169.95 to \$529.95, every Sansui delivers sophisticated electronics, flawless styling and superb convenience.

You can enjoy listening to them at your franchised Sansui dealer. For even more enjoyment, you can own One.

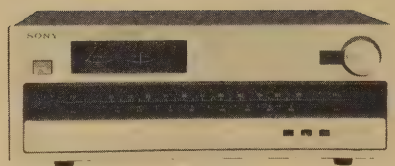
SANSUI ELECTRONICS CORP.

Woodside, New York 11377 • Gardena, California 90247 • SANSUI ELECTRIC CO., LTD., Tokyo, Japan
SANSUI AUDIO EUROPE S.A. Antwerp, Belgium • ELECTRONIC DISTRIBUTORS (Canada) B.C.

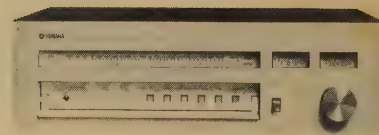


Check No. 60 on Reader Service Card

Tuners



Sony ST-4950



Yamaha CT-7000

Sherwood SEL-300

MANUFACTURER	Model	IHF sensitivity, μ V, mono/stereo	Capture ratio, dB	Alt. chan. selectivity, dB	AM suppress., dB	Signal for 50 dB quieting (μ V), mono/stereo	Stereo sep., 1 kHz, dB	Stereo sep., 10 kHz, dB	THD, mono, 100% mod. 1 kHz	THD, stereo, 100% mod. 1 kHz	Tuning indicator(s) type, how many	S/N ratio, max. at 200 μ V, mono/stereo, dB	Max. output level, V	De-emphasis (μ s)	Dimensions, in.	Weight, lbs.	Price, \$	NOTES
PILOT RADIO	211	1.8	1.5	65		5/40	38		0.4	0.8	2 Mtrs.	65/60	1	75	15x5x11		199.95	*Plus Pilotune.
PIONEER	TX-9500	1.5/-	1.0	85	55	2.5/35	40	35	0.15	0.2	2 Mtrs.	80/76	*	25/75	16 $\frac{1}{2}$ x5 $\frac{7}{8}$ x14 $\frac{3}{8}$	20	399.95	Var. muting, PLL MPX. *Var output 07-2 V.
	TX-7500	1.9/-	1.0	80	55	4/50	40	35	0.2	0.3	2 Mtrs.	73/68	*	25/75	16 $\frac{1}{2}$ x5 $\frac{7}{8}$ x14 $\frac{3}{8}$	18	249.95	Relay muting, PLL MPX. *Var output .05-1.5 V.
	TX-6200	1.9/-	1.5	60	50	-	40	30	0.2	0.4	Mtr.	70/-	*	75	16 $\frac{1}{2}$ x5 $\frac{7}{8}$ x13 $\frac{3}{8}$	15 $\frac{1}{2}$	139.95	*Var. output .06-1.8 V.
RADIO SHACK	TM-1000	2/-	2				35		.3	.3	Mtr.	65			4 $\frac{1}{2}$ x15 $\frac{1}{2}$ x11 $\frac{1}{2}$		159.95	
REVOX	A720	1/10	1	60	54		40		0.2	0.2	2 Mtrs.	70/-	1.5	75	19 $\frac{1}{2}$ x12 $\frac{1}{2}$ x8 $\frac{1}{2}$	30	1665.00	Tuner-preamplifier-control unit, frequency-synthesizing digital tuner.
ROTEL	RT-224	4/-	4	50	50	7/-	35	30	0.5	1	Mtr.	60/-			13 $\frac{1}{2}$ x8 $\frac{1}{2}$ x4 $\frac{1}{2}$	6.6	139.95	
	RT-324	1.9/-	1.5	60	50	4/-	40	35	0.3	0.5	Mtr.	65/-			16x9 $\frac{1}{2}$ x4 $\frac{1}{2}$	7.7	179.95	
	RT-624	1.8/-	1.0	85	54	3.3/-	40	35	0.3	0.5	2 Mtrs.	70/-			17 $\frac{1}{2}$ x12x5 $\frac{1}{2}$	17.6	289.95	
	RT-824	1.6/-	1.0	85	55	3/-	40	35	0.3	0.5	2 Mtrs.	70/-			17 $\frac{1}{2}$ x12x5 $\frac{1}{2}$	19.8	359.95	
SAE	(F) 6B	1.6/3.0	1.5	140	100	3.6/28	50	38	0.1	0.15	Scope*	75/65	1.0	75	17x10 $\frac{1}{2}$ x5 $\frac{1}{2}$	20	1250.00	Butterworth i.f. filters, *digital readout, adjustable muting.
	(F) 8	1.6/3.0	1.5	120	100	3.8/30	45	35	0.15	0.20	2 Mtrs.*	70/60	1.0	75/25	17x10 $\frac{1}{2}$ x5	18	650.00	IC i.f. filters, *digital readout, terms. for multipath 'scope.
	(F) 32	1.6/3.5	1.5	100	100	4.2/32	42	32	0.15	0.20	*	67/57	1.0	75	17x7x5 $\frac{1}{2}$	12	350.00	*As above.
SANSUI	TU-9900	1.5/-	1	90	58	3/-	50	40	0.06	0.08	2 Mtrs.	80/76	1	*	18x6 $\frac{1}{2}$ x12 $\frac{1}{2}$	21 $\frac{1}{2}$	449.95	*25, 50, 75
	TU-7700	1.8/-	1.5	80		3/-	40	30	0.2	0.3	2 Mtrs.	75/-	.78	75/50	17x5x9 $\frac{1}{2}$	15 $\frac{1}{2}$	329.95	
	TU-5500	1.9/-	2	60		4/-	40		0.3	0.4	2 Mtrs.	70/-	.78	75/50	17x5x9 $\frac{1}{2}$	15 $\frac{1}{2}$	279.95	
	TU-4400	2/-	2			4/-	40		0.3	0.4	2 Mtrs.	70/-	.78	75/50	15x4 $\frac{1}{2}$ x9 $\frac{1}{2}$	11	199.95	
H. H. SCOTT	(F) T33S	1.0/1.8	1.2	75	75	5/25	40		0.25	0.35	2 Mtrs.	75/70	1	50, 75	17 $\frac{1}{2}$ x6x13	12	999.95	Frequency synthesizer, manual or card-programmed, automatic scanning, digital display.
	T311S	2.5/5	2.5	55	55	5/25	35		0.6	0.8	Mtr.	60/50	1	50, 75	15 $\frac{1}{2}$ x5 $\frac{1}{2}$ x9 $\frac{1}{2}$	10	169.95	
SEQUERRA	Model 1*	1.6/3	1	120	70	2.6/30	55	46	0.6	0.11	2*	73/69	1.2	*	19x7x14 $\frac{1}{2}$	46	2500.00	*Panoramic & tuning displays on 'scope; 75, 50 or 25 μ s de-emphasis.
SHERWOOD	SEL-300	1.5/-	1.5	85	65	3.0/-	40	35	0.15	0.3	2 Mtrs.	70/65	1.0	75	16 $\frac{1}{2}$ x14x5 $\frac{1}{2}$	25	Under 500	Digital readout, var. mute
	S-2400	1.8/-	1.5	65	60	3.5/-	40	35	0.8	0.5	2 Mtrs.	70/65	1.0	75	17 $\frac{1}{2}$ x14x5 $\frac{1}{2}$	24	Under 250	Var. output, 4-chan. output.
SONY	ST-5130	1.5/-	1.0	100	60	2.3/-	42		0.2	0.3	2 Mtrs.	75/-	2	75	6x15 $\frac{1}{2}$ x13 $\frac{1}{2}$	16 $\frac{1}{2}$	370.00	
	ST-4950	1.9/-	1.0	80	53	4.0/-	40	30	0.15	0.3	2 Mtrs.	70/-	2	75	6 $\frac{1}{2}$ x17x13	17	350.00	
	ST-5150	2.0/-	1.0	70	56	2.7/-	40		0.3	0.5	2 Mtrs.	70/-	2	75	6x15 $\frac{1}{2}$ x13 $\frac{1}{2}$	15 $\frac{1}{2}$	280.00	
	ST-5055	2.2/-	1.0	70	45		35		0.4	0.6	Mtr.	68/-	2	75	4 $\frac{1}{2}$ x16x11	10 $\frac{1}{2}$	210.00	
	ST-5066	2.2/-	1.5	55	45		35		0.5	0.8	Mtr.	68/-	2	75	4 $\frac{1}{2}$ x16x11	10 $\frac{1}{2}$	170.00	
	STC-7000	1.7/-	1.0	100	60		40		0.3	0.5	2 Mtrs.	70/-	2	75	5 $\frac{1}{2}$ x18 $\frac{1}{2}$ x13 $\frac{1}{2}$	22 $\frac{1}{2}$	590.00	Includes preamp.
SUPERSCOPE	T-220	2.8	4	45	35	7/40	32	20	0.5	1.0	Mtr.	65/55	-	75	14x5x13	15 $\frac{1}{2}$	179.95	
	T-210	5	6	25	35	10/55	30	15	1.0	1.5	Mtr.	60/-	-	75	14x5x8	5 $\frac{1}{2}$	119.95	
TOSHIBA	(F) ST-910	1.8/-	1	70	65		40		0.16*	0.2		75/-			17 $\frac{1}{2}$ x5 $\frac{1}{2}$ x13 $\frac{1}{2}$	17 $\frac{1}{2}$	1800.00	Digital display, crystal oscillator, auto tuning, Sensitized-glass touch switches for all functions, 3-level signal-strength indicators, 3-level muting control.
	ST-410	2.0/-	1.5	60	50		40		0.5*		2 Mtrs.	40/-			15 $\frac{1}{2}$ x4 $\frac{1}{2}$ x13	12 $\frac{1}{2}$	239.95	* @ 400Hz. * @ 400 Hz.
YAMAHA	CT 7000	2.0/-	1.0	80	60		50	35	.06/-	0.06	2 Mtrs.				17 $\frac{1}{2}$ x5 $\frac{1}{2}$ x12 $\frac{1}{2}$	28 $\frac{1}{2}$	1200.00	7-gang tuning capacitor, i.f. bandwidth switchable, MPX noise filter, auto touch tuning, multipath 'scope terminals. Dual outputs.
	CT-800	1.7/-	1.0	80	55		45	35	.15/-	0.30	2 Mtrs.				17 $\frac{1}{2}$ x5 $\frac{1}{2}$ x12 $\frac{1}{2}$	16 $\frac{1}{2}$	370.00	As above, less cap, tuning and swit. bandwidth.
	CT-600	2.0/-	1.5	75	55		40	28	.3/-	0.5	2 Mtrs.				17 $\frac{1}{2}$ x5 $\frac{1}{2}$ x12 $\frac{1}{2}$	16 $\frac{1}{2}$	270.00	As above.
	CT-400	2.0/-							.3/-	0.5	2 Mtrs.				17 $\frac{1}{2}$ x5 $\frac{1}{2}$ x11 $\frac{1}{2}$	11	210.00	

NOW...an AUDIO exclusive:

This timely **SOUND ADVICE** suggestion: A Comprehensive Guide to the Music/Record Business . . .



If you're music business "career minded" . . .

Hear the facts for yourself in taped interviews straight from the "pros"

Compiled from Recording Institute of America's interviews with key executives and "hit-makers", plus Reference Directory and Dialogue Viewpoints of industry "stars".

Listen to the industry "pros" describe the workings of the Music Business. Hear the most respected attorneys of the entertainment field define and discuss the legal terminology of Recording Contracts, Songwriter Contracts, Professional Management Contracts. Over 3½ hours of professional reference . . . could be the most important 200 minutes of your life!

Plus . . . RIA Reference Directory, including sample songwriter affiliation forms, sample artist contracts, writer contracts, etc., in addition to a Directory of Record Manufacturers, Music Publishers, Personal Managers, Producers and Booking Agents. Also **Record World's "Dialogues"** with over 50 candid interviews from **Record World** magazine, and a cross-section of "star" personality interviews.

You get all the above (regularly \$49.95) for only \$39.95 for Audio readers.

***Interviews include:**

Pete Bennett.....Promotion, Apple Records
Sid Bernstein.....Personal Manager and Promoter
Rick Blackburn.....Dir. of Sales, Columbia Records
Terry Cashman.....Pres., Cashwest Productions, Inc.
Bob Cato.....V.P., Creative Services, United Artists
Kip Cohen.....V.P., A&R, A&M Records
Al Coury.....V.P., Production, Capitol Records
Al DeMarino.....V.P., Music Department, CMA
Tom Draper.....Dir., R&B, RCA Records
Kenny Gamble.....Pres. & Producer, Phila. Int. Rec. Co.
David Glew.....V.P., Marketing, Atlantic Records
Barbara Harris.....Dir., Artist Relations, Atlantic Records
Emil LaViola.....Prof. Mgt., Chappell Publishers
Michael Martineau.....Booking Agent, Premier Talent
Mark Meyerson.....A&R, Atlantic Records
Barry Oslander.....West Coast Prof. Dir., Jobete Music Co.
Richard H. Roemer.....Law Firm of Roemer & Nadler
Alvin Teller.....V.P. Merchandising Marketing, Columbia Records
Peter Thall.....Law Firm of Casper & Thall, P.C.
Ron Weisner.....V.P., Artist Relations, Buddah Records

. . . and many others

10 DAYS FREE APPROVAL—MAIL TODAY

Book and Learning Systems Division
NORTH AMERICAN PUBLISHING COMPANY
134 North 13th Street, Philadelphia, Pa. 19107

Send me the complete "MUSIC INDUSTRY CASSETTE LIBRARY." If I decide to keep this after 10 days examination I will remit the purchase price plus postage and handling, or return it for cancellation of all charges.

Name (please print) _____

Signature _____

Firm or Inst. _____

Home Address _____

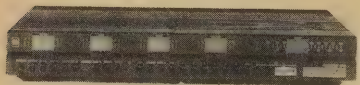
City, State, Zip _____

☐ **SAVE MONEY.** My payment is enclosed. Publisher pays all postage and handling. Same money-back return privilege.

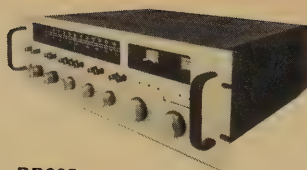
Receivers



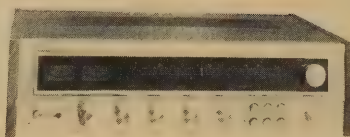
Akai AA-1010DB



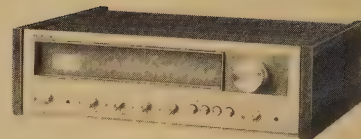
B & O 4000



CM Labs RR805



Craig 5502



Hitachi SR-502

- NOTES: (1) All models solid-state except where mod. no. is preceded by (T).
 (2) (K) indicates kit price; (W) wired.
 (3) All models FM/AM except FM-only where preceded by (F).
 (4) (Q) with mod. no. means 4-channel.

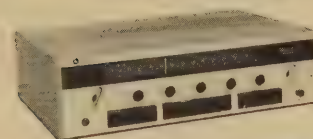
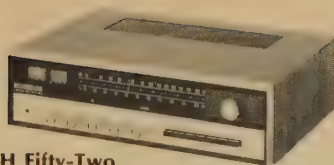
MANUFACTURER	Model	Ave. power/ch., into 8 ohms, W.	Max THD 0.25 W.-rated power, %	Max IM 0.25 W.-rated power, %	Freq. range for FTC-rated power, Hz-kHz	S/N, phono re 10 mV input, dB	Phono sens., mV	Phono overload, mV	IHF sens. tuner, mono/stereo microvolts	Capture ratio, dB	Signal for 50 dB quieting, μ V, mono/stereo	THD mono, 100% mod. 1 kHz, %	THD stereo, 100% mod. 1 kHz, %	Deemphasis, μ S	Alt. chan. selectivity, dB	Tuning aids, no. & type	S/N ratio, mono/stereo, dB	Dimensions, in.	Weight, lbs.	Price, \$	NOTES
AKAI	(Q) AS-1080DB	*			20-20			1.8/-	1.0			50	80	Mtr.					895.00	*40 w/ch. in 4-chan., 80 w/ch. in stereo.	
	(Q) AS-1070	*			20-20			2/-	1.0			50	70	Mtr.					695.00	*25 w/ch. in 4-chan., 50 w/ch. in stereo.	
	AA-1050	50			20-20			1.8/-				50	80	2 Mtrs.					450.00		
	AA-1030	30			20-20	80	3	1.9/-	1.5		0.2	0.4	50	70	2 Mtrs.	70	17x5x13	28	350.00		
	AA-1010DB	13			40-20			2/-				50	60	2 Mtrs.					295.95		
	AA-810DB	10			20-20	75	2.5	2/-	3		0.4	0.8	50	65	Mtr.	70			249.95		
	AA-810	10			20-20	75	2.5	2/-	3		0.4	0.8	50	65	Mtr.	70			199.95		
BANG & OLUFSEN	Beomaster 4000	60*	0.4	0.3	40-20	58	3	2/-	3			50	55	Mtr.	70/*	3 1/2x23x10 1/2	22 1/2	595.00	*Power @ 4 ohms, S/N at 10 kHz, 100 μ V.		
	Beomaster 3000-2	40*	0.6	0.6	40-20	60	3	2/-	3			50	55	Mtr.	70/*	3 1/2x23x10 1/2	19 1/2	495.00			
CAMBRIDGE AUDIO	1500	5	1.0	1.0	50-20	60	2.8	3.5/12	3.5	8/20	0.8	1.0	—	40	Mtr.	62/62	17x6x10 1/2	14	179.95		
	2500	25	0.9	0.9	20-20	70	4	2.5/8	3	6/15	0.8	0.9	—	50	Mtr.	70/65	17x6x11	23	279.95		
C/M LABS	RR805	54	0.3	0.2	20-20	65	2.2	1.8/7	1.5	5/30	0.5	0.5	50/75	70	2 Mtrs.	65/63	19x5 1/4x14	36	600.00		
CONCORD (Benjamin)	CR-50	5	2		20-25	55	3	4.5/-	6		1.0	1.5		40	Mtr.		16x11 1/2x4	9 1/2	129.95	Mag. phono input; tape mon. swit.; spkr. sel.	
	CR-110	7	1		27-30	60	2.8	3/-	3		0.8	1.5		50	Mtr.		15 1/2x11 1/2x5	9 1/2	164.95	Fine tuning; duo-glo ind.; black-out dial.	
	CR-210	12	1		20-30	58	2.8	2.9/-	2		0.6	1		43	Mtr.		16x12 1/2x5 1/2	16	219.95	Fine tuning; duo-glo ind.; elec. crt. brkr.	
	CR-260	25	1		20-35	60	2.5	2.3/-	1.5		0.5	1		46	2 Mtrs.		18 1/2x15x5 1/2	20	269.95	Same as above.	
CRAIG	5501	17	0.9		10-40	60	2.5	2.5/-			0.5	1.0	75/25		Mtr.		19 1/2x5x13	16 1/2	199.95		
	5502	25	0.9		10-40	60	2.5	2.0/-			0.5	1.0	75/25		2 Mtrs.		19 1/2x5x13	19	249.95		
GTE SYLVANIA	RS4744	60	.25	.5	20-20	70	2.2	1.8/3.5	1.5	3/35	.4	.4	75	55	2 Mtrs.	67/65	17 1/2x6x15	29	479.95		
	RS4743	30	.25	.5	20-20	70	2.2	1.8/3.5	1.5	3/35	.5	.5	75	55	Mtr.	67/65	17 1/2x6x15	27	349.95		
	RS5742	20	.5	.8	20-20	70	2.2	1.9/4	1.5	3/35	.5	.5	75	45	Mtr.	65/60	18x5 1/2x13 1/2	27	279.95		
	RS5741	10	.5	.8	40-20	70	2.2	1.9/4	1.5	3/35	.5	.5	75	45	Mtr.	65/60	18x5 1/2x13 1/2	23	199.95		
	RS5740	5	1.0		60-20	56	2.2	50	4/6.5	6.5	.5	.7	75		MPX ind.	60/55	18x5 1/2x13 1/2	17	159.95		
	(Q) RQ4748	50	0.5	0.5	20-20	60	2.6	90	1.9/3.5	1.5	2.8/35	.5	.5	75	55	2 Mtrs.	67/60	21 1/2x6 1/2x15	44	699.95	
	(Q) RQ4747	25	0.5	0.5	20-20	60	2.6	90	1.9/3.5	1.5	2.8/35	.5	.5	75	55	2 Mtrs.	67/60	21 1/2x6 1/2x15	38	599.95	
	(Q) RQ4746	15	1.0	1.0	20-20	50	3	60	2.3/4	1.5	3/40	.3	.3	75	50	2 Mtrs.	67/60	17 1/2x6x15	27	479.95	
	(Q) RQ4745	7.5	1.0	1.0	30-20	50	3	60	2.3/4	1.5	3/40	.3	.3	75	50	Mtr.	67/60	17 1/2x6x15	27	399.95	
HEATH	AR-1500A	60	0.25	0.1	20-20	63	1.8	145	1.8/-	1.5		0.5	0.5	75	90	2 Mtrs.	60/58	18 1/2x13 3/8x5 1/8	32	399.95(K)	Modular construction, L-C filters in AM & FM PLL MPX, noise-operated squelch, tape monitor, tone flat switch.
	AR-29	35	0.25	0.2	20-20	65	2.2	155	1.8/-	1.5		0.5	0.5	75	70	2 Mtrs.	60/58	16 1/2x14 1/2x5 1/8	26.5	329.95(K)	Modular construction, 9-pole L-C FM filter, preassembled front-end, 2 spkr. switches.
	AR-1302	20	0.25	0.25	20-20	65	2.4	155	1.9/-	1.8		0.5	0.5	75	60	2 Mtrs.	60/55	16 1/2x14 1/2x5 1/8	26.5	279.95(K)	Modular construction, ceramic filters, preassembled front-end, 2 spkr. swit.
	AR-1214	15	0.5	0.5	20-20	60	2.0	75	2.0/-	2.0		0.5	0.75	75	60	—	60/55	17x13x3 3/8	13	199.95(K)	Ceramic filters, PLL MPX
	AR-2020Q	15	0.5	0.5	20-20	60	2.0	75	2.0/-	2.0		0.5	0.75	75	60	—	60/55	20x14x5	24	269.95(K)	Modular construction, ceramic filters, PLL MPX, AM, SQ decoder.
HITACHI	SR-302	15	0.8	0.8	40-20	70	2.5	100	1.9/-	1.0	10/35	0.2	0.4	75	46	Mtr.	70/-	17 1/2x5 1/2x13 1/2	18 1/2	219.95	
	SR-502	22	0.8	0.8	40-20	70	2.5	100	1.9/-	1.0	9/34	0.2	0.4	75	46	Mtr.	70/-	17 1/2x5 1/2x13 1/2	18 1/2	269.95	
	SR-802	50	0.3	0.3	20-20	74	2.5	100	1.7/-	1.0	8/32	0.15	0.25	75	80	2 Mtrs.	74/-	19 1/2x5x15 1/2	26 1/2	399.95	

Receivers



JVC 4VR-5456

KLH Fifty-Two



Leak 2000



Kenwood KR-9940

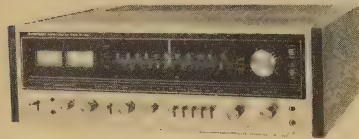


MX 1661

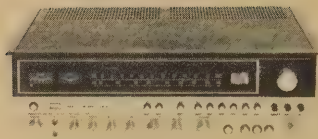
NOTES: (1) All models solid-state except where mod. no. is preceded by (T).
(2) (K) indicates kit price; (W) wired.
(3) All models FM/AM except FM-only where preceded by (F).
(4) (Q) with mod. no. means 4-channel.

MANUFACTURER	Model	Ave. power/chan. into 8 ohms, W, as per FTC rule																			Tuning aids, no. & type	S/N ratio, mono/stereo, dB	Dimensions, in.	Weight, lbs.	Price, \$	NOTES
		Max THD 0.25 W, rated power, %	Max IM 0.25 W, rated power, %	Freq. range for FTC-rated power, % Hz-kHz	S/N, phono re 10 mV input, dB	Phono sens., mV	Phono overload, mV	IHF sens. tuner, mono/stereo microvolts	Capture ratio, dB	Signal for 50 dB quieting, μ V, mono/stereo	THD mono, 100% mod. 1 kHz, %	THD stereo, 100% mod. 1 kHz, %	De-emphasis μ S	All. Chan. selectivity, dB												
JVC	(Q) 4VR5426X	13	1.0	1.0	20-20	65	1.5	2.2/-	2.5		.5	.8	75	50	Mtr.		6"x18"x15 1/2	26 1/2	399.95							
	(Q) 4VR5436X	15	0.8	1.0	20-20	65	1.5/3	2/-	2		.5	.8	75	65	2 Mtrs.		6"x20"x15 1/2	31 1/2	549.95							
	(Q) 4VR5446X	21	0.5	0.8	20-20	65	1.5/3	2/-	2		.5	.8	75	65	2 Mtrs.		6"x20"x15 1/2	34 1/2	649.95							
	(Q) 4VR5456X	43	0.5	0.8	20-20	65	1.9/3	1.8/-	1.2		.4	.6	75	65	Mtr.		7x20"x16	44	399.95							
	5505	8	0.8	0.8	20-20	65	3	2.2/-	2.5		.5	.8	75	50	2 Mtrs.		5"x18"x13	17 1/2	179.95							
	5515	19.5	0.8	0.8	20-20	65	2.5	2.2/-	2.5		.5	.8	75	50	2 Mtrs.		6"x17"x12	19 1/2	269.95							
	5525	25	0.8	0.8	20-20	65	2.5	2.2/-	2.5		.5	.8	75	50	2 Mtrs.		6"x18"x12	23	349.95							
	5535	30	0.8	0.8	20-20	65	2.5	2.2/-	2		.5	.8	75	65	2 Mtrs.		6"x18"x12	25 1/2	399.95							
KLH	52A	32	1.0		25-20	69	3.5	60	1.8	2		.5	.8	52	2 Mtrs.		5 1/2"x18"x18	23	349.95							
	55A	13	1.0		45-15	55	2.5	25	2.0	2.5		.5	1.0	46	Mtr.		5 1/2"x16 1/2"x19 1/2	16	259.95							
KENWOOD	KR-9400	120		0.1	20-20	70	2.5	150	1.7/-	1.3		0.3	0.5	25/75	80	2 Mtrs.	72/-	22x6 1/2"x15 1/2	45	749.95						
	KR-7400	63	0.3	0.3	20-20	70	2.5	120	1.7/-	1.3	5/-	0.3	0.5	75	80	2 Mtrs.	70/-	19x6x13 1/2	31	519.95						
	KR-6400	45	0.3	0.3	20-20	70	2.5	120	1.9/-	1.5	5/-	0.3	0.5	75	65	2 Mtrs.	68/-	19x6x13 1/2	29	449.95						
	KR-5400	35	0.5	0.5	20-20	70	2.5	120	1.9/-	1.5	5/-	0.3	0.5	75	65	Mtr.	68/-	19x6x13 1/2	25	379.95						
	KR-4400	25	0.5	0.5	20-20	70	2.5	120	2.1/-	2	5/-	0.4	0.6	75	55	Mtr.	65/-	19x5 1/2"x13 1/2	20	299.95						
	KR-3400	16	1.0	1	20-20	70	2.5	110	2.5/-	3	7/-	0.4	0.6	75	45	Mtr.	62/-	19x5 1/2"x13 1/2	16 1/2	259.95						
	KR-2400	13	1.0	1	20-20	70	2.5	110	2.5/-	3	7/-	0.4	0.6	75	45	Mtr.	62/-	19x5 1/2"x13 1/2	16	219.95						
	KR-1400	10	1.0	1	50-20	70	2.5	100	2.6/-	3		0.4	0.6	75	45	Mtr.	60/-	22x16 1/2"x15	17	179.95						
	(Q) KR-9940	50	-	0.5	20-20	70	2	120	1.8/-	3	-/63	0.5	0.8	75	50	2 Mtrs.		21x6 1/2"x14 1/2	46	974.95						
	(Q) KR-8840	40	-	0.5	20-20	70	2	120	1.9/-	3	-/63	0.5	0.8	75	50	Mtr.		21x6 1/2"x14 1/2	44	849.95						
	LAFAYETTE	(Q) LR-5000	35	0.5	1	20-20		6/4	14/ 100/ 10/ 70	1.65/-	1.5		0.5		75	60	2 Mtrs.	65	21x5 1/2"x15	31	599.95					
(Q) LR-3000		15	0.5	1	20-20		6/4	100/ 70	2.5	2.5		0.5		75	40	Mtr.	65	17 1/2"x5x14	19	449.95						
LR-3500		47	0.5	1	20-20	68	6/2.5	105/ 46	1.65/-	1.5		0.25		75	60	2 Mtrs.	65	19 1/2"x5x14	25	399.95						
LR-2200		27	0.5	1	20-20	65	6/2.5		1.75/-	1.5		0.5		75	60	2 Mtrs.	70	17x5x14	16	299.95						
LEAK (Ercona)	2000	30	0.1	0.1	10-40		2.2	*	1.6/-	1.5		0.5	0.5	50	50			18 1/2"x11 1/2"x5 1/2	21.5	750.00	*Phono overload margin +35 dB.					
MX	MX1581	60	0.3	0.5	20-20		2.5	100	1.8/-	1.7	2.5/30	0.2	0.3	25/75*	75	2 Mtrs.	70/65	19x6x15	36	529.95	*Dolby circuit includes 25 μ S de-emphasis.					
	MX1580	60	0.5	0.8	20-20		2.5	50	1.8/-	1.7	2.5/30	0.2	0.3	75	75	2 Mtrs.	70/65	19x6x15	36	479.95						
	MX1571	40	0.3	0.5	20-20		2.5	100	1.8/-	1.7	2.5/30	0.2	0.3	75	75	2 Mtrs.	70/65	19x6x15	35	429.95						
	MX1570	35	0.5	0.8	20-20		2.5	50	1.8/-	1.7	2.5/30	0.2	0.3	75	75	2 Mtrs.	70/65	19x6x15	35	399.95						
	MX1561	28	0.3	0.5	20-20		2.5	100	1.8/-	1.7	2.5/30	0.2	0.3	75	75	2 Mtrs.	70/65	19x6x15	34	379.95						
	Mx1143	20	0.5	0.8	20-20		2.5	90	2.1/-	1.7	3.5/-	0.4	0.8	75	65	Mtr.	65/60	17 1/2"x5x12 1/2	31	299.95						
	MX1142	15	0.5	0.8	20-20		2.5	90	2.2/-	1.7	5.0/-	0.5	0.8	75	58	Mtr.	65/60	17 1/2"x5x12 1/2	31	239.95						
	(Q) MX1671	50	0.5	0.8	20-20		2.5		1.8/-	1.7	2.5/30	0.2	0.3	25/75*	75	2 Mtrs.	70/65	22 1/2"x6x15	40	799.95	*Dolby circuit includes 25 μ S de-emphasis.					
	(Q) MX1661	25	0.5	0.8	20-20		2.5		1.8/-	1.7	2.5/30	0.2	0.3	75	75	2 Mtrs.	70/65	22 1/2"x6x15	35	699.95						
	(Q) MX1630	25	0.5	0.8	20-20		2.0/4.0		1.8/-	1.7	2.5/30	0.2	0.3	75	75	2 Mtrs.	70/65	22 1/2"x6x15	35	599.95						
(Q) MX1620	12	0.5	0.8	20-20		2.0/4.0		1.8/-	1.7	2.5/30	0.2	0.3	75	75	2 Mtrs.	70/65	22 1/2"x6x15	30	499.95							
MARANTZ	2325	125	.15	.15	20-20		1.8	100		1.25	5/50	.15	.3	25/75	80	2 Mtrs.		18x5 1/2"x19 1/4	49	799.95						
	2275	75	.25	.25	20-20		1.8	100		1.5	5/50	.25	.35	25/75	80	2 Mtrs.		17x5 1/2"x14 1/4	38	649.95						
	2250	50	.25	.25	20-20		1.8	100		1.5	5/50	.3	.4	25/75	80	2 Mtrs.		17x5 1/2"x14 1/4	34	499.95						
	2240	40	.3	.3	20-20		1.8	100		1.5	5/50	.3	.4	25/75	65	2 Mtrs.		17x5 1/2"x14 1/4	30	449.95						
	2235	35	.25	.25	20-20		1.8	100		1.5	5/50	.3	.4	25/75	65	Mtr.		17x5 1/2"x14 1/4	26	399.95						
	2220B	20	.5	.5	20-20		1.8	100		2.5	5/50	.3	.5	25/75	50	Mtr.		17x5 1/2"x14 1/4	23	299.95						
	(Q) 4400	50	.15	.15	20-20		2	110		1.5	5/50	2	.3	25/75	75	Scope		18x5 1/2"x19 1/4	53	1250.00						
	(Q) 4300	40	.15	.15	20-20		2	110		1.5	5/50	2	.3	25/75	70	2 Mtrs.		18x5 1/2"x19 1/4	52	899.95						
	(Q) 4270	25	.3	.3	20-20		2	110		1.5	5/50	.3	.4	25/75	60	2 Mtrs.		17x5 1/2"x14 1/4	39	699.95						
	(Q) 4240	17	.5	.5	20-20		2	100		1.5	5/50	.3	.4	25/75	60	2 Mtrs.		17x5 1/2"x14 1/4	36	599.95						
	(Q) 4230	12	.5	.5	20-20		1.8	100		2.5	7/-	.4	.7	25/75	48	2 Mtrs.		17x5 1/2"x14 1/4	34	499.95						
	(Q) 4220	8	.9	.9	40-20		2.1	100		2.5	10/-	.5	.8	75	48	Mtr.		16x4 1/2"x11	20	299.95						
	NIKKO	7075	38	0.5		20-20				1.9/-	1.3		0.4			2 Mtrs.	-/50	19x6x14	30	399.95						
		5055	18	0.8		20-20				2/-	1.5		0.5			2 Mtrs.	-/50	19x6x14	25	299.95						
		6065	30	0.5		20-20				2/-	1.5		0.5			2 Mtrs.	-/50	19x6x14	26	349.95						
8085		45	0.3		20-20				1.9/-	1.3		0.4			2 Mtrs.	-/50	19x6x14	30	449.95							
3035		15	0.8		20-20				2/-	1.5		0.5			Mtr.	-/50	19x6x14	24	249.95							
9090		58	0.3		20-20				1.8/-	1.8		0.5			2 Mtrs.	-/55	18 1/2"x6 1/2"x5 1/4	33	499.95							
2025		10	1.0		40-20				2.5-	3.0		0.5			Mtr.	-/45	18x5x14	16	199.95							

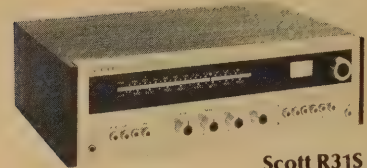
Receivers



Pioneer SX-1010



Sansui QRX 7001



Scott R31S

- NOTES: (1) All models solid-state except where mod. no. is preceded by (T).
 (2) (K) indicates kit price; (W) wired.
 (3) All models FM/AM except FM-only where preceded by (F).
 (4) (Q) with mod. no. means 4-channel.

MANUFACTURER		Model	Ave. power/chan. into 8 ohms, 7W, as per FTC rule		Max THD 0.25 W-rated power, %	Max IM 0.25 W-rated power, %	Freq. range for FTC-rated power, Hz-kHz	S/N, phono, re 10 mV input, dB	Phono sens., mV	Phono overload mV	IHF sens. tuner, mono/stereo microvolts	Capture ratio, dB	Signal for 50 dB quieting, μ V, mono/stereo	THD mono, 100% mod. 1 kHz, %	THD stereo, 100% mod. 1 kHz, %	De-emphasis μ S	Alt. chan. selectivity, dB	Tuning aids, no. & type	S/N ratio, mono/stereo, dB	Dimensions, in.	Weight, lbs.	Price, \$	NOTES
OLSON	RA618	15	0.9		50-20	62	2.5	25	2.0/-	3	4/-	0.6	0.88	75	62	Mtr.	63/-	18x10x3 3/4	16	170.00			
	RA655	5	0.9		50-20	60	2.5	25	2.0/-	4.0	5/-	0.75	0.95	75	59	Mtr.	60/-	18x10x3 3/4	14	140.00			
	(Q) RA632	15	0.9		50-20	62	2.5	25	2.0/-	3.0	4/-	0.6	0.88	75	62	2 Mtrs.	63/-	18 1/2 x 5 x 12	20	160.00			
	(Q) RA660	5	0.9		50-20	60	2.5	25	2.0/-	4.0	5/-	0.75	0.95	75	59	2 Mtrs.	60/-	18 1/2 x 5 x 11	18	120.00			
	RA 250	50	0.9		50-20	70	2.0	40	1.6/-	2	3/-	0.5	0.6	75	65	2 Mtrs.	66/-	18 1/2 x 6 x 12	24	399.95			
ONKYO	TX-670	56	0.3		20-20	65	2.5	*	1.8/-	1.5		0.2	0.5	75	75	2 Mtrs.	70/-	21x5 1/2 x 16 1/2	30.4	519.95			*140 (1 kHz).
	TX-560	48	0.5		20-20	65	2.5	*	1.8/-	1.5		0.3	0.7	75	70	2 Mtrs.	70/-	18 1/2 x 5 1/2 x 14 1/2	26.5	449.95			*100 (1 kHz).
	TX-440	24	0.5		20-20	65	2.5	*	2.0/-	2		0.4	0.8	75	65	2 Mtrs.	70/-	18 1/2 x 5 1/2 x 14 1/2	26	349.95			*100 (1 kHz).
	TX-330	17	0.5		20-20	65	2.5	*	2.5/-	2		0.4	0.8	75	60	2 Mtrs.	65/-	18 1/2 x 5 1/2 x 14 1/2	23	299.95			*100 (1 kHz).
	TX-220	12	1.0		50-20	60	2.5		3.0/-	2		0.4	0.8	75	60	Mtr.	65/-	16 1/2 x 5 1/2 x 13 1/2	22.5	219.95			
	(Q) TS-500	20	1.0		20-20	65	2.5		1.8/-	2		0.4	0.8	75	65	Mtr.	70/-	21x5 1/2 x 16 1/2	38	749.95			
PILOT RADIO	525	25	0.5	0.5	20-20		2.5		2.2/-	2	5/50	0.3	0.4	75	65	Mtr.	60/-	18x5x13		349.90			
	540	40	0.3	0.5	20-20		2.5		1.8/-	1.5	5/40	0.3	0.4	75	75	Mtr.	65/-	18x5x13		419.90			
	254	60	0.4	0.5	20-20		2.5		1.8/-	1.5	5/40	0.4	0.8	75	65	2 Mtrs.	65/-	18x7x17		549.90			
	Q-365	15	0.5	0.5	20-20		2.5		2.2/-	1.5	5/50	0.5	0.8	75	50	Mtr.	60/-	18x7x17		439.90			
	Q-366	30	0.5	0.5	20-20		2.5		1.8/-	1	5/40	0.4	0.8	75	65	2 Mtrs.	65/-	18x7x17		579.90			
	252	25	0.5	0.5	20-20		2.5		2.2/-	2	5/50	0.5	0.8	75	50	Mtr.	60/-	18x5x13		309.90			
	253	35	0.5	0.5	20-20		2.5		1.8/-	1.5	5/40	0.4	0.8	75	65	Mtr.	65/-	18x5x13		389.90			
PIONEER	SX-1010	100	0.1	0.1	20-20	70	2.5/2.5	250	1.7/-	1.0	--	0.2	0.3	75	90	2 Mtrs.	72/-	20 1/2 x 6 1/2 x 17 1/2	49	699.95			
	SX-939	70	0.3	0.1	20-20	70	2.5/2.5	250	1.8/-	1.0	--	0.2	0.4	75	80	2 Mtrs.	70/-	20 1/2 x 6 1/2 x 16 1/2	40%	599.95			
	SX-838	50	0.3	0.3	20-20	70	2.5/2.5	170	1.8/-	1.0	--	0.2	0.4	75	80	2 Mtrs.	70/-	20 1/2 x 6 1/2 x 16 1/2	35%	499.95			
	SX-737	35	0.5	0.5	20-20	70	2.5	170	1.9/-	1.0	--	0.2	0.4	75	60	2 Mtrs.	70/-	19 1/2 x 6 1/2 x 17 1/2	29	399.95			
	SX-636	25	0.5	0.5	20-20	70	2.5	110	1.9/-	1.0	--	0.2	0.4	75	60	2 Mtrs.	70/-	22x8 1/2 x 18 1/2	28%	349.95			
	SX-535	20	0.8	0.8	40-20	70	2.5	110	1.9/-	1.0	--	0.2	0.4	75	60	2 Mtrs.	70/-	18 1/2 x 5 1/2 x 16	22%	299.95			
	SX-434	15	0.8	0.8	40-20	70	2.5	100	1.9/-	1.0	--	0.2	0.4	75	60	Mtr.	70/-	17x5 1/2 x 13 1/2	17%	239.95			
	QX-949 (Q)	60	0.3	0.3	20-20	70	2.5/2.5	100	1.8/-	1.0	--	0.2	0.4	75	80	2 Mtrs.	70/-	21 1/2 x 6 1/2 x 17 1/2	49%	749.95			
QX-747 (Q)	40	0.5	0.5	20-20	70	2.5	100	1.9/-	1.0	--	0.2	0.4	75	60	Mtr.	70/-	21 1/2 x 6 1/2 x 16 1/2	42 1/8	649.95				
QUADRAFLEX	969	45	0.5	0.5	20-20	68	2	80	1.8/-	2.0	3.0/-	0.25	0.5	75	70	2 Mtrs.	70/-	20 1/2 x 5 1/2 x 16	24	369.95			
	868	30	0.5	0.5	20-20	68	2	80	1.9/-	2.0	3.2/-	0.25	0.5	75	55	2 Mtrs.	70/-	19 1/2 x 5 1/2 x 15 1/2	21%	299.95			
	767	20	0.5	0.5	35-20	68	2	80	2.0/-	2.5	3.4/-	0.3	0.6	75	50	Mtr.	68/-	18 1/2 x 5 1/2 x 13	19	239.95			
	666	15	0.5	0.5	35-20	68	2	80	2.4/-	3.0	3.6/-	0.35	0.7	75	45	Mtr.	88/-	17x5 1/2 x 12 1/2	15	199.95			
RADIO SHACK	STA-15	3.5	1		20-20		2.5		3.5/-	3.5		1.0	1.5	75	30	Mtr.	58/-			119.95			
	STA-47	12	.25		20-20		2.5		3/-	3		0.7	1.0	75	45	Mtr.	60/-			199.95			
	STA-82	22	1		20-20		2.5		2.5/-	2		0.6	0.8	75	50	Mtr.	60/-			299.95			
	STA-90	44	5	0.3*	20-20		2.0		2/-	1.2		0.4	0.5	75	60	Mtr.	62/-			359.95			*Rated @ 30 W.
	STA-225	50	4	0.1*	20-20		3.0		1.9/-	2		0.4	0.5	75	70	Mtr.	65/-			399.95			*Rated @ 40 W.
ROTEL	RX-102	5.5	1.0	1.2	50-20	60	2.4	70	4/12	4		0.5	0.8	75	65	Mtr.	65/70	18 1/2 x 11 x 4 1/2	9	159.95			
	RX-152	10	1.0	0.5	50-20	65	2.6	80	4/12	4		0.5	0.7	75	65	Mtr.	65/70	18 1/2 x 11 x 4 1/2	11	179.95			
	RX-202	15	1.0	0.5	50-20	65	2	80	2.9/12	3		0.5	0.7	75	65	Mtr.	65/70	18 1/2 x 11 x 4 1/2	13	199.95			
	RX-402	25	0.5	0.2	20-20	65	2	85	2.0/10	2	2.4/37	0.5	0.4	50/75	71	Mtr.	65/70	18 1/2 x 13 x 4 1/2	15	279.95			
	RX-602	35	0.5	0.15	20-20	65	2	130	1.8/10	1.5		0.3	0.4	50/75	85	2 Mtrs.	70/73	22 1/2 x 13 x 5 1/2	22	379.95			
	RX-802	50	0.5	0.05	20-20	65	2	150	1.5/8	1.0		0.3	0.4	50/75	85	2 Mtrs.	70/73	24x15x5 1/2	35	479.95			
SANSUI	(Q) QRX-7001	35	0.4	0.4	20-20	70	2.5	150	1.9/-	1.5		0.3	0.5	50/75	70	2 Mtrs.	70/-	21 1/2 x 6 1/2 x 16	52%	879.95			
	(Q) QRX-6001	25	0.5	0.5	20-20	70	2.5	150	2.0/-	1.5		0.3	0.5	50/75	70	2 Mtrs.	70/-	12 1/2 x 6 1/2 x 16	45	759.95			
	(Q) QRX-5001	17	0.5	0.5	30-20	60	2.5	120	2.5/-	2.5		0.4	0.7	50/75	60	Mtr.	65/-	19x5 1/2 x 13	30%	599.95			
	881	63	0.3	0.3	20-20	70	2.5	200	1.8/-	1.5		0.3	0.5	50/75	70	2 Mtrs.	70/-	19x5 1/2 x 12	29	529.95			
	771	40	0.5	0.5	20-20	70	2.5	200	2.0/-	2.0		0.4	0.6	50/75	60	Mtr.	60/-	19x5 1/2 x 12	26%	429.95			
	661	25	0.5	0.5	30-20	70	2.5	150	2.2/-	2.5		0.5	0.7	50/75	50	Mtr.	60/-	17 1/2 x 5 1/2 x 12	22	349.95			
	551	16	0.8	0.8	40-20	70	2.5	90	2.5/-	2.5		0.4	0.7	50/75	60	Mtr.	65/-	16 1/2 x 5 1/2 x 11 1/2	19	259.95			
	331	12	1.0	1.0	40-20	70	2.5	120	2.5/-	1.5		0.8	1.0	50/75	60	Mtr.	65/-	16 1/2 x 5 x 10 1/2	12%	199.95			
	221	8	1.0	1.0	40-20	70	2.5	120	2.5/-	1.5		0.8	1.0	50/75	60	Mtr.	65/-	16 1/2 x 5 x 10 1/2	11%	169.95			
H. H. SCOTT	R77S	70	0.5	0.15	20-20	70	2.2	180	1.9/5	1.5		0.3	0.5	50/75	70	2 Mtrs.	70/-	18 1/2 x 5 1/2 x 15 1/2	36	499.95			
	R74S	40	0.5	0.2	20-20	70	2.2	180	1.9/5	1.5		0.3	0.5	50/75	70	2 Mtrs.	70/-	18 1/2 x 5 1/2 x 15 1/2	29	369.95			
	R34S	20	0.5	0.5	20-20	60	2.5	55	2.5/-	2.5	5/-	0.5	0.8	50/75	55	2 Mtrs.	60/-	18x5 1/2 x 12	18	259.95			
	R31S	15	0.5	0.5	20-20	60	2.5	55	2.5/-	2.5	5/-	0.5	0.8	50/75	55	Mtr.	60/-	18x5 1/2 x 12	16%	199.95			

We're not afraid to turn our back on you.



The Sylvania RS4744

We can afford to be very forward about our back.

Because the back of our RS 4744 stereo receiver is one of the most versatile you'll ever see. We've got phono inputs for two different turntables. And two sets of tape monitor input and output jacks. And terminals for main speakers, remote speakers, and PQ4 speakers. And three AC power outlets, one switched and two unswitched. The rest you can see for yourself in the picture above.

But what's behind our back is just as impressive as the back itself.

As *Popular Electronics** put it, the RS4744 "met or surpassed all the published specifications we were able to test" and was



"...well above average in the important performance aspects."

Take power, for example. *Popular Electronics* found the RS 4744 "conservatively rated" at 60 watts per channel, min. RMS at 8 ohms from 20Hz to 20kHz with no more than .25% Total Harmonic Distortion. Which made it "outstanding for a receiver in the RS 4744's price range." FM 50 dB quieting sensitivity was equally impressive—"a very good $3\mu\text{v}$ in mono and $35\mu\text{v}$ in stereo."

But don't take our word for it. Or their word for it. Go see the RS 4744 for yourself.

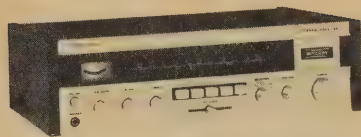
Back or front, any way you look at it, the RS 4744 is one fine stereo receiver.

*Popular Electronics, December 1974 Issue.

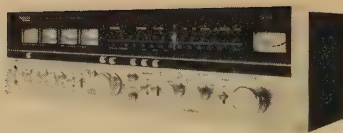
GTE SYLVANIA

Check No. 24 on Reader Service Card

Receivers



Superscope R-350



Technics SA-8500X

- NOTES: (1) All models solid-state except where mod. no. is preceded by (T).
 (2) (K) indicates kit price; (W) wired.
 (3) All models FM/AM except FM-only where preceded by (F).
 (4) (Q) with mod. no. means 4-channel.

MANUFACTURER	Model	Ave. power/chan. into 8 ohms, W.	Max THD 0.25 W, %	Max IM 0.25 W, %	Freq. range for FTC-rated power, Hz	S/N, phono (a 10 mV input), dB	Phono sens., mV	Phono overload, mV	IHF sens., tuner, monostereo microvolts	Capture ratio, dB	Signal for 50 dB quieting, μ V, mono/stereo	THD mono, 100% mod, 1 kHz, %	THD stereo, 100% mod, 1 kHz, %	De-emphasis, μ S	Alt. chan. selectivity, dB	Tuning aids, no. & type	S/N ratio, monostereo, dB	Dimensions, in.	Weight, lbs.	Price, \$	NOTES
SHERWOOD	(Q) S-7244	20	0.6	0.6	20-20	84	3.0	100	1.9/-	1.5	3.5/-	0.25	0.5	75/-	55	Mtr.	66/62	18"x15"x5"	40	Under 500	Remote contl.; tape mon.; FM mute; hi fltr.
	(F) S-8900A	60	0.3	0.3	20-20	84	1.5	100	1.7/-	1.9	2.7/-	0.15	0.3	75/-	65	Mtr.	70/65	17"x14"x6"	30	Under 450	Dynaquad; 4-chan. tuner output.
	S-7900A	60	0.3	0.3	20-20	84	1.5	100	1.7/-	1.9	2.7/-	0.15	0.3	75/-	65	Mtr.	70/65	17"x14"x16"	30	Under 475	Dynaquad; hi fltr.; FM mute
	S-7310	38	0.5	0.5	20-20	84	2.0	90	1.8/-	1.2	2.7/-	0.25	0.5	75/-	65	Mtr.	70/65	17"x13"x5"	35.5	Under 400	Dynaquad; hi fltr.; tape mon.; rem. spkr. swit.
	S-7210	26	0.6	0.8	20-20	84	2.0	110	1.9/-	1.4	2.8/-	0.3	0.6	75/-	65	Mtr.	70/65	17"x13"x5"	28.5	Under 300	Dynaquad; FM mute.; tape mon.
	S-7110	17	0.9	0.9	40-20	84	2.0	90	2.0/-	1.5	2.9/-	0.4	0.6	75/-	60	Mtr.	70/65	17"x13"x5"	27.5	Under 250	Loud swit.; tape mon.; remote spkr. swit.
	S-7010	10	0.9	1.0	40-20	84	2.0	80	2.8/-	4.0	3.3/-	0.6	0.8	75/-	50	Mtr.	65/62	17"x13"x5"	27	Under 200	Tape mon.; remote spkr. swit.
SONY	STR-7065	60	0.2	0.2	20-20	86	2	100	2/-	1		0.2	0.5	75/-	70	2 Mtrs.	70/-	6"x18"x14"	33%	550.00	All models: THO at 400 Hz.
	STR-7055	35	0.2	0.2	20-20	84	2	100	2/-	1		0.2	0.5	75/-	70	Mtr.	70/-	6"x18"x14"	33%	450.00	
	STR-7045	30	0.2	0.2	20-20	85	1.8	80	2.6/-	1.5		0.2	0.5	75/-	70	Mtr.	70/-	6"x18"x14"	31	370.00	
	STR-7035	24	0.8	0.8	40-20	72	2.5	60	2.2/-	1.5		0.3	0.8	75/-	60	Mtr.	68/-	6"x17"x14"	19	300.00	
	STR-6046A	20	0.8	0.8	20-20	72	2.5	60	2.2/-	1.5		0.3	0.8	75/-	60	Mtr.	68/-	5"x17"x13"	19%	280.00	
	STR-7025	18	0.8	0.8	40-20	72	2.5	60	2.2/-	1.5		0.3	0.8	75/-	60	Mtr.	68/-	6"x17"x14"	18%	260.00	
	STR-6036A	15	0.8	0.8	20-20	72	2.5	60	2.2/-	1.5		0.3	0.8	75/-	60	Mtr.	68/-	5"x17"x13"	19	230.00	
	STR-7015	15	0.8	0.8	40-20	72	2.5	100	2.2/-	3		0.3	0.8	75/-	60	Mtr.	68/-	6"x16"x13"	16%	220.00	
	(Q) SQR-8750	30	0.2	0.2	20-20	78	5/2.5	100/50	1.9/-	1.2	-	0.2	0.5	75/-	75	Mtr.	70/-	7"x20"x14"	47%	700.00	
	(Q) SQR-6750	20	0.2	0.2	20-20	76	5/2.5	100/50	2.2/-	1.5	-	0.3	0.6	75/-	50	Mtr.	70/-	7"x20"x14"	43 1/3	600.00	
	(Q) SQR-4750	15	0.8	0.8	20-20	76	5/2.5	100/50	2.2/-	1.5	-	0.3	0.6	75/-	50	Mtr.	68/-	6"x18"x13"	29	500.00	
SUPERSCOPE	R-310	5	1.0	-	30-30	-	3	100	5/30	4	7/70	0.7	1.0	75/-	35	Mtr.	68/58	17"x5x11	16	179.95	
	R-330B	8	1.0	-	20-20	-	2.5	150	5/20	5	6/45	0.5	1.0	75/-	28	Mtr.	68/57	17"x5x13		219.95	
	R-340B	12	1.0	-	30-30	-	2.5	140	2.2/35	3/40	3/40	0.5	.5	75/-	45	Mtr.	73/62	17"x5x13		259.95	
	R-350	15	1.0	-	20-20	-	4	120	2.8/40		7/40	0.5	1.0	75/-	45	Mtr.	65/55	17"x5x13	20%	299.95	
TANDBERG	TR1055	55	0.2	0.2	4-70	68	2-8*	100	-/2	0.9		0.2	0.3		80	2 Mtrs.		17"x5"x12"	22%	649.90	*Adjustable.
	TR2075	75	0.2	0.2	4-100	68	1.5-8*	160	-/2	0.9		0.15	0.2		80	2 Mtrs.		20"x14"x6"		999.00	*Adjustable.
	TR1040		0.2	0.2	4-60	68			-/2	0.9		0.2	0.3		80	Mtr.		17"x12"x5"		549.90	
TECHNICS BY PANASONIC	SA-5550	58	0.3	0.4	20-20	70	2		1.8/-	1.6		0.2	0.4	75/-	70	2 Mtrs.	70/-	18"x5"x15"	28%	479.95	Detent tone controls, 2 sets tape mons., multiple sprk. protect, cer. filter i.f.s. PLL MPX.
	SA-5350	28	0.5	0.7	20-20	70	2		1.9/-	1.6		0.3	0.4	75/-	70	Mtr.	70/-	16"x5"x14"	21%	349.95	As above except dual sprk. protect. & no tone detents.
	SA-5250	23	0.5	0.7	20-20	70	2		1.9/-	1.6		0.3	0.4	75/-	70	Mtr.	70/-	16"x5"x14"	18 1/3	299.95	As above.
	SA-5150	16	0.8	0.8	20-20	70	2		1.9/-	1.8		0.3	0.4	75/-	70	Mtr.	70/-	16"x5"x14"	15%	229.95	Ceramic filter i.f.s. PLL MPX.
	(Q) SA-8500X	26	0.5	0.5	20-20	70	2		1.9/-	1.5		0.3	0.4	75/-	65	Mtr.	65/-	6"x21"x15"	37 1/3	739.95	CD-4 demod. & matrix decoder w/ 2 pos.; 4 VU meters, three 4-chan. tape mons.; direct-coupled amps; detent tone cont switch for 2 sets of 4 spkrs.
	(Q) SA-8100X	16	0.5	0.7	20-20	70	2		1.9/-	1.5		0.3	0.4	75/-	65	Mtr.	65/-	6"x19"x5"	32%	649.95	As above except sprk. sw. & tone detent.
TOSHIBA	SA-300	7.5	0.8		50-20	65	3		2.5/-	3		0.4	1.0		Mtr.		15"x5x11"	15 1/2	219.95		*11.5 w/ch. in strapped (stereo) mode.
	(Q) SA-304	8*	0.8		50-20	60	3		2.5/-	2.5			0.5		Mtr.		15"x5x11"	18	349.95		*50 w/ch. in strapped mode.
	(Q) SA-504	20*	0.4		50-20	65	2.5		1.8/-	1.5		0.2	0.5		2 Mtrs.		20"x5x14"	33	569.95		*40 w/ch. in strapped mode.
	(Q) SA-514	15*	0.4		20-20	65	2.5		2/-	2		0.3	0.5		2 Mtrs.		20"x5x14"		599.95		
YAMAHA	CR-1000	10	0.1	0.1	20-20		3		1.7/40	1	3/40	0.15	0.3	75/-	80	2 Mtrs.	75/72	20"x6"x13"	41.8	850.00	Auto-touch tuning, 2 tape circuits w/ dubbing.
	CR-800	45	0.1	0.1	20-20		3		1.7/40	1	3/40	0.15	0.3	75/-	80	2 Mtrs.	75/72	18"x6"x11"	30.8	580.00	
	CR-600	30	0.1	0.1	20-20		3		2.0/50	1.5	3/40	0.3	0.5	75/-	75	2 Mtrs.	70/66	18"x6"x11"	27.5	460.00	
	CR-400	16	0.5	0.1	20-20		3		2.5/50	2.0	3.5/50	0.3	0.8	75/-	75	2 Mtrs.	68/66	17"x6"x11"	20.9	330.00	As above.

Introducing the BSR Silent Performer

The only rumble from this belt-drive turntable comes from our competitors.

For years most expensive manual record-playing devices have used belt-drive as a smooth, trouble-free—and most important—silent method for transmission of power. Now, our engineers have succeeded in integrating a highly-refined belt-drive system into more affordably-priced turntables. They offer a combination of features and performance not yet available in even more expensive competitive models. We call them the Silent Performers.

Our Model 20 BPX is a fully automated single-play turntable with a precision machined platter, high-torque multi-pole synchronous motor, tubular "S" shaped adjustable counter-weighted tone arm in gimbal mount, viscous cueing, quiet Delrin cam gear, automatic arm lock, dual-range anti-skate and much more. It is packaged with base, hinged tinted dust cover, and ADC K6E cartridge. See your audio dealer for more information, or write to us.



Consumer Products Group
BSR (USA) Ltd.
Blauvelt, N.Y. 10913


Multi-Play Turntables

SPEEDS

A 33, 45, 78 D 16, 33, 45, 78
B 33, 45 E 16, 33, 45
C 33 only F Cont. variable

MANUFACTURER	MODEL	Speeds (see letter code)	Platter diameter, in.	Wow & flutter at 33 1/3, % (W R M S)	Rumble, dB (DIN "B")	Max. tracking error, deg/in.	Pivot-stylus dist., in.	Stylus force adjustment method	Tracking force range, gms.	Arm resonance, Hz.	Max. stack records	Change cycle at 33 1/3, sec.	Base opt. or inc.?	Clearance above board, in.	Dimensions, in inches	Overall height, in.	Dust cover inc.?, or price?	Weight, lbs. (net)	Price, \$	NOTES
B.I.C.	940	B	12	0.03	-65	0.35	8.6	Bal.	0.4	9	6	14	opt.	5	15 1/2 x 12 1/2 x 6 1/2	11	no	12	109.45	300 rpm sync. direct-drive mtr.
	960	B	12	0.03	-65	0.35	8.6	Bal.	0.4	9	6	14	opt.	5	15 1/2 x 12 1/2 x 6 1/2	11	no	12	159.95	As above; ±3% speed var.
	980	B	12	0.03	-65	0.35	8.6	Bal.	0.4	9	6	14	opt.	5	15 1/2 x 12 1/2 x 6 1/2	11	no	13	199.95	As above, plus illum. strobe, electronic speed control.
BSR	200BAX	B	11	0.06	-60	0.75	7.5	Adj.ctr. wt.	0.4	7	6	12	inc.	5	16 1/2 x 14 1/2	8	inc.	18%	204.85	Incl. ADC VLM MK II cartridge, sync. motor, belt drive, stylus wear indicator. Belt drive.
	100BAX	B	11	0.09	-58	0.75	7.5	Adj.ctr. wt.	0.6	11	6	12	inc.	5	16 1/2 x 14 1/2	8	inc.	16%	154.80	
	810QX	B	12	0.15	-55	0.5	8.5	Adj.ctr. wt.	0.4	7	6	14	inc.	4 1/2	17 1/2 x 14 1/2	8 1/2	inc.	22	299.80	Dual voltage motor, stylus wear indi., variable speed control. As above.
	710QX	B	12	0.15	-55	0.5	8.7	Adj.ctr. wt.	0.4	7	6	14	inc.	4 1/2	17 1/2 x 14 1/2	8 1/2	inc.	19	255.80	
	2620W	B	11	0.18	-54	1.0	7.5	Adj.ctr. wt.	0.6	11	6	8	inc.	4	15 1/2 x 14	7 1/2	inc.	15	150.80	Variable speed control.
	2310W	A	10	0.26	-50	1.0	7.5	Adj.ctr. wt.	0.6	11	6	8	inc.	4	15 1/2 x 14	7 1/2	inc.	15	110.80	All models include cartridge, base, dust cover, two spindles.
	2260X	A	10	0.3		1.0		Adj.ctr. wt.	0.6		6	8	inc.	4	15 x 13 1/2	7 1/2	inc.	14	89.80	
CRAIG	8403	A									6		inc.		15 1/2 x 14	7	inc.	12 1/2	59.95	W. ceramic pickup.
DUAL	1225	B	10 1/2	0.15	56	0.46	8%	Bal. & spg.	0-5	8	6	13	opt.	4%	13 x 11	6	opt.	8%	139.95	
	1226	B	10 1/2	0.12	57	0.46	8%	Bal. & spg.	0-5	9	6	13	opt.	4%	13 x 11	6	opt.	9%	169.95	
	1228	B	10 1/2	0.09	59	0.46	8%	Bal. & spg.	0-5	5 1/2	6	13	opt.	4%	13 x 11	6	opt.	9%	199.95	Gimbal suspension tone arm.
	1249	B	12	0.06	63	0.4	8%	Bal. & spg.	0-3	6	6	13	opt.	5	14 1/2 x 12	6 1/2	opt.	15	279.95	Belt drive.
ELAC (BENJAMIN)	50HMKII	A	12	0.06	-40*	0.4	8	Bal. & spg.	1/2-6 1/2	8	10	10		5%	14 1/2 x 12 1/2	18			249.95	*NAB.
	760	A	12	0.06	-44*	0.4	8	Bal. & spg.	1/2-6 1/2	8	10	10		5%	14 1/2 x 12 1/2	18			199.95	*NAB.
	820	B	11	0.07	-40*	0.5	8	Bal. & spg.	1-4		10	12		5%	13 1/2 x 11	15			129.95	*NAB.
GARRARD	Z2000B	B	11 1/2	0.06	-64	0	7%	Bal. & wt.	5-3	5	5	12	opt.	4%	14 1/2 x 14	7 1/2	9.95	18	229.95	W. stylus timer, lo-capacity cables.
	990B	B	11 1/2	0.06	-64	0.5	8%	Bal.	7-4	8	5	12	opt.	4%	15 1/2 x 14	7 1/2	9.95	18	169.95	
	770M	A	10 1/2	0.08	-57	0.7	7%	Bal. & spg.	1.5-5	10	6	10	inc.	4%	16 1/2 x 15	8 1/2	inc.	14	119.95	W. base, cover, Shure 93E pickup, lo-capacity cables.
	440M	A	10 1/2	0.10	-55	0.9	7%	Bal. & spg.	2-6	12	6	10	inc.	4%	16 1/2 x 15	8 1/2	inc.	14	79.95	W. base, cover, Shure 93E pickup, lo-capacity cables.
GLENBURN	(Q)2195B/Q	A	11	0.10	-55	±0.5	8	Bal.	1.5-3	7	6	25	inc.	6%	14 1/2 x 15 1/2	8	inc.	15	149.95	W. audio-technica AT-14S pickup.
	2195B	A	11	0.10	-55	±0.5	8	Bal.	1.5-3	7	6	25	inc.	6%	14 1/2 x 15 1/2	8	inc.	15	119.95	W. ADC K3E pickup.
	2175B	A	11	0.10	-55	±0.5	8	Bal.	1.5-3	7	6	25	inc.	6%	14 1/2 x 15 1/2	8	inc.	15	89.95	W. ADC K6E pickup.
	(Q)2155B/Q	A	11	0.12	-55	±1	7%	Spg.	1.5-3	10	6	25	inc.	6%	14 1/2 x 15 1/2	8	inc.	14	99.95	W. Audio-technica AT-12S pickup.
	2155B	A	11	0.15	-55	±1	7%	Spg.	2-4	10	6	25	inc.	6%	14 1/2 x 15 1/2	8	inc.	14	74.45	
	2110B	A	11	0.20	-55	±1	7%	Spg.	2-5	10	6	25	inc.	6%	14 1/2 x 15 1/2	8	inc.	13	59.95	
	1120A	A	11	0.20	-45	±1	7%	Spg.	2-6	10	6	25	inc.	6%	14 1/2 x 15 1/2	8	inc.	13	59.95	
	1100A	A	10	0.20	-42	±1	7%	Spg.	2-6	10	6	25	inc.	6%	14 1/2 x 15 1/2	8	inc.	13	49.95	
MESA	Mesa I	B	11				8%	Bal. & spg.	0-5		6		inc.	4	17 x 14 1/2	7 1/2	inc.	13%	49.95	W. ceramic cart., 2 diamond styli.
	Mesa IM	B	11				8%	Bal. & spg.	0-5		6		inc.	4	17 x 14 1/2	7 1/2	inc.	14	59.95	4-pole mtr.; Audio-technica AT-10 cart.
	Mesa II	B	11				8%	Wgt. & spg.	0-5		6		inc.	4	17 x 14 1/2	7 1/2	inc.	14	69.95	4-pole mtr.; Audio-technica AT-11 cart.
	Mesa III	B	11				8%	Wgt. & spg.	0-5		6		inc.	4	17 x 14 1/2	7 1/2	inc.	14	89.95	As above, but AT-11 cart.
	(Q)Mesa IV	B	11				8%	Wgt. & spg.	0-5		6		inc.	4	17 x 14 1/2	7 1/2	inc.	14	139.95	As above, but AT-14SA 4-chan. cart.
MX	MX1220	A	11	0.20	-52			Bal. & spg.	1 1/2-5		6		inc.	8%	16 1/2 x 14 1/2	10	inc.	19%	129.95	Incl. Shure M-75 cart.
	MX1230	A	11	0.15	-58			Bal. & spg.	1-5		6		inc.	8%	16 1/2 x 14 1/2	10	inc.	21%	169.95	Incl. Shure M-75 cart.
	(Q)MX1236	A	11	0.15	-58			Bal. & spg.	1-5		6		inc.	8%	16 1/2 x 14 1/2	10	inc.	21%	199.95	Incl. Audio-Technica AT-12S cart. & lo-cap cables.
P-E (IMPRO)	3060	A	10 1/2	0.08*	-59	0.5	8%	Bal. & spg.	0-3		6	13	opt.	5	13 x 10 1/2	6 1/2	12.95	10%	199.95	*DIN
	3048	B	10 1/2	0.09*	-58	0.5	8%	Bal. & spg.	0-3		6	13	opt.	5	13 x 10 1/2	6 1/2	12.95	14	169.95	*DIN
	3046	B	10 1/2	0.12*	-57	0.5	8%	Bal. & spg.	0.5		6	13	opt.	5	13 x 10 1/2	6 1/2	12.95	13	149.95	*DIN
	3044	B	10 1/2	0.15*	-56	0.5	8%	Bal. & spg.	0.5		6	13	opt.	5	13 x 10 1/2	6 1/2	12.95	12%	119.95	*DIN
RADIO SHACK	LAB-50	B	11	0.09	-58			Bal. & spg.	0-6	11	6		inc.		16 1/2 x 14 1/2	8	inc.	16.25	99.95	Belt drive, ind. base, cartridge.
TECHNICS BY PANASONIC	SL-1350	B	13	0.04	-70	0.22	9	Wgt.	0-3	7-10	6		inc.		17 1/2 x 13 1/2	8	inc.	21	349.95	Direct-drive motor; Memo-gram

Some things hold up better than others.



The accepted concept of durability is based on several very important factors. Material. Design. Engineering. Function. And inherent value. Coincidentally, these are also the hallmarks of the Thorens TD-125 AB Mark II.

The materials are the finest available. The design and engineering incorporate the ultimate in turntable technology.

Functioning flawlessly, it originates state-of-the-art that others have yet to achieve. To match the impeccable performance, this Thorens is constructed to hold up . . . not wear down. It has inbred longevity instead of built-in obsolescence.

The precision performance of the TD-125 AB Mark II serves as continuing proof of the Thorens determination to remain the classic name in turntables. There are other models, too, starting at \$169.95.

Elpa Marketing Industries, Inc.
East: New Hyde Park, N.Y. 11040;
West: 7301 E. Evans Rd., Scottsdale, Ariz. 85260.

THORENS®



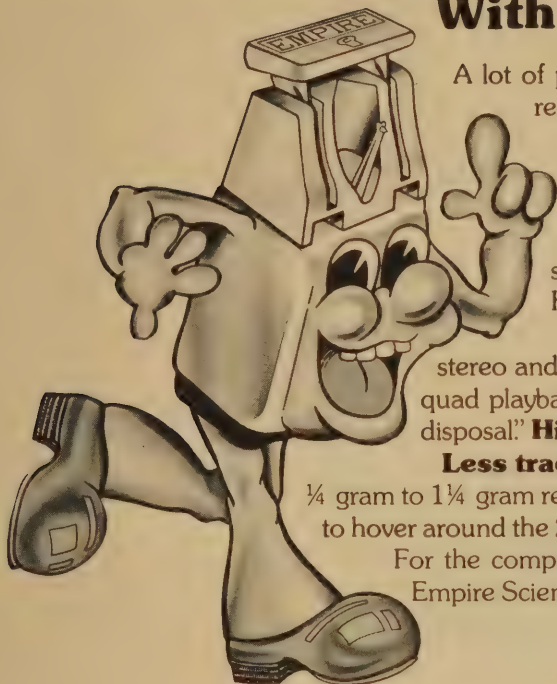
Single-Play Turntables

SPEEDS
A - 33, 45, 78 D - 16, 33, 45, 78
B - 33, 45 E - 16, 33, 45
C - 33 only F - Cont. variable

MANUFACTURER		MODEL	Speeds (rev/min)		Wav. & flutter at 33 1/3, % (W RMS)	Rumble in db (DIN '80')	Motor type	Platter size (dia. in.)	Speed adjustment, %	Drive system (belt, idler)	Speed accuracy, 33 1/3, %	Dimensions, in. inches	Weight, lbs. (net)	Model (for separate arm)	Overall length, in.	Prior stylus dist., in.	Vertical bearing type	Lateral bearing type	Stylus force adj. method	Max. tracking error, deg/in.	Anti-skate adjustment?	Arm resonance, Hz	Stylus force range, gms.	Weight, if separate wing, oz.	Price \$	NOTES
ACOUSTIC RESEARCH	XA	B 0.3	-38*	ind.sync.	11%		belt	0.3	12"x16"x5%	13%			12	9	conc.	sleeve	ctr. wt.	0.42	no	6-10	0.6		129.00		*RRL method rumble, -55 dB. Incl. dust cover & base.	
	X8	B 0.03	-38*	ind.sync.	11%		belt	0.3	12"x16"x5%	13%			12	9	conc.	sleeve	ctr. wt.	0.42	no	6-10	0.6		145.00		*As above. Includes damped cueing.	
AUDIO-TECHNICA													AT1005II	12 1/2	9%	ball	ball	wght.	1.5	yes		0.3		79.95		Pneumatic cueing, calibrated anti-skate.
													AT 1009	13	9%	ball	ball	wght.	1.5	yes		0.25		139.95		AT-L2, opt. lift, \$16.95.
BANG & OLUFSEN	4002	B 0.025	65	sync.	12	3	belt	0.02	19"x4"x15	26%	*	6%	6%	pivots	ball	spg.	0.001			0.3		690.00			*Integrated B&O tone arm.	
	3000	B 0.045	62	async.	12	3	belt idler	0.1	17"x4"x13	20%	*	11%	9	**	pivots	spg.	0.2		11	0.3		300.00			**Precision balls, inclined, anti-skate, built into arm bearing.	
BSR	20BPX	B 0.09	-58	hys.sync.	11		belt	1	7"x16"x14%	16%			11	7.5	pivot	ball	adj. ctr. wt.	0.75	yes	7	0.4		142.80			*Also avail. without pickup as model 20BP @ \$102.85. Includes base, dust cover and two spindles.
CONCORD (BENJAMIN)	80-1000	B 0.1	-60	sync.	11%		belt	0.5	18"x14"x7%	16%				8%	ball	ball	bal.	1.0	yes		0.4		99.95		Manual.	
	BA-300	B 0.1	-60	sync.	11%		belt	0.5	17"x14"x7%	16%				8%	ball	ball	bal.	1.0	yes		0.4		129.95		Semi-automatic.	
	BA-600	B 0.09	-60	sync.	11%		belt	0.5	17"x14"x7%	16%				8%	ball	ball	bal.	1.0	yes		0.4		159.95		Automatic.	
	80-7000	B 0.04	-65	sync.	12		belt	0.3	17"x14"x7%	18%				8%	ball	ball	bal.	1.0	yes		0.3		219.95		Semi-automatic, d.c. servo motor.	
CRAIG	5102	B 0.05	-40 nab	sync.	12		belt		19"x7"x14	15								+6, -1	yes		0.4		169.95		80pF cables.	
DUAL	510	B 0.06	63	sync.	12		belt		14"x12x4%	14%			11%	8%	*	*	bal. & spg.	0.4	yes	6	0.3		199.95			*All models: vertical and lateral bearings, ball & needle.
	601	B 0.06	63	sync.	12	3	belt		14"x12"x4%	24			11%	8%	*	*	bal. & spg.	0.4	yes	6.5	0.3		249.95			
	C.S. 701	B 0.03	70	direct	12	3	belt		14"x12"x4%	24			11%	8%	*	*	bal. & spg.	0.4	yes	6.5	0.3		400.00			
EMI (GOTHAM)	928	A *	-65	**	12	2	belt	0.3	18"x10x3%	31	929	12	9	pivot	ball	bal. & spg.	0.83	yes	7	5.5		1554.00			*±0.1 DIN 45-507.	
	930	A *	-62	hys.sync.	13	4	idler	0.8	19"x15x7	51	929	12	9	pivot	ball	bal. & spg.	0.83	yes	7	5.5		2634.00			**3-phase elect. conit. **±0.075 DIN 45-507.	
ERA (AUDIOINICS)	MK6	B 0.05	60	hys.sync.	12		belt	0.25	16x5x12%	16	*	*										145.00			*Less arm.	
	3035	E 0.05	60	hys.sync.	12		belt	0.1	18x5x14	20	M7						wght.	1.25	yes		0.4		260.00			*Auto. shutoff.
EMPIRE	598 III	B 0.04	-63*	hys.sync.	12	3	belt	0.25	17"x15x8	19			12	9	ball	ball	bal.	0.7	yes	6	0.4		399.95			4000D III cart. Inc. *ARLL.
GARRARD	2100SB	B 0.06	-64	Synchro-lab	11%		belt	0.2	17"x15x7*	25			11	7%	ball	ball	bal. & wt.	0.0	yes	5	0.3					All models incl. base, d.c. and lo-cap. cables. *Include base and dust cover.
	86SB	B 0.06	-64	Synchro-lab	11%		belt	0.2	17"x15x7*	25			10%	8%	ball	ball	bal. & wt.	0.8	yes	8	0.4					
	125SB	B 0.08	-60	Synchro-lab	11		belt	0.2	16"x15x8%	14			9%	7%	needle	ball	bal. & wt.	1.3	yes	8	0.5					
GALE ELECTRONICS	GT2101	F 0.01	75	*			direct																1875.00			*Crystal-controlled power for electronic brushless d.c. motor. Speed accuracy @ 33 1/3 rpm 10 ppm.
GRACE (SUMIKO)													G-707	11 1/2	9%	pivot	pivot	bal.	1.5	yes	8	0.3		129.95		Low mass.
													G-840	12	9%	pivot	pivot	bal.	1.5	yes	7	0.3		119.95		CD-4 compatible.
													G-860	14%	11%	pivot	pivot	bal.	1.1	yes	5	0.3		149.95		16 in., CD-4 compatible.
													G-940	11%	9%	pivot	pivot	bal.	1.5	no		0.3		149.95		Oil damped, CD-4.
HITACHI	PS-10	B 0.1	-50	sync.	12		belt		18"x14"x6%	15.5			11%	8%	ball	ball	bal.	2.0	yes	6	0.5		134.95			
	PS-15	B 0.08	-50	sync.	12		belt		18"x14"x6%	15.5			11	8%	ball	ball	bal.	2.0	yes	6	0.5		169.95			
	PS-14	B 0.08	-50	sync.	12		belt		19"x15"x7%	22.0			11	8%	ball	ball	bal.	2.0	yes	6	0.5		349.95			CD-4 demodulator equipped.
	PS-38	B 0.04	-60	D.C. direct	12%	3	direct		18"x14"x6%	18.3			11	8%	ball	ball	bal.	2.0	yes	6	0.5		199.95			
JVC	VL-5	B 0.1	50	sync.	12	3	belt		7"x18x15	15					pivot	ball	bal.		yes				129.95			
	JL-844	B 0.05	60	D.C. servo	12%		direct		7"x19"x16%	28.5				9%	pivot	ball	bal.	1.5	yes	7*	0.3		299.95			*With Shure V-15 III pickup.
KENWOOD	KD-5033	B 0.05	-70	d.c. servo	12	3	direct		19x13"x6%	22			11%	9	ball	ball	bal.	1.5	yes	7	0.4		279.95			
	KD-3033	B 0.06	-63	sync.	12		belt		19x13"x6%	15%			11%	9	ball	ball	bal.	1.5	yes	7	0.4		179.95			
	KD-2033	B 0.06	-63	sync.	12		belt		19x14"x6%	13			11%	9	ball	ball	bal.	1.5	yes	7	0.4		129.95			
	KD-1022	B 0.07	-62	sync.	12		belt		17x15x7	13			11%	9	ball	ball	bal.	1.5	yes	7	0.4		109.95			
KLH RESEARCH TEN DIV.	60	B 0.09	58	sync.	11%		belt	0.3	17x13"x6%	*			11.3	9.1	pivot	sleeve	wght.	1.5	yes	13	5.4		150.00			*22 lbs. shipping wght.
LENCO (UMER)	L85IC	B 0.08 DIN	-63	hys.sync.	12%	+7 -3	direct								ball	ball			yes							
LINN SONDEK (AUDIOPHILE SYSTEMS, PAOLI)	LP12	C 0.04	-60*	Sync.	12		belt		17"x14x5%	25													359.00			*Unweighted, Incl. dust cover, base, oil bearing.
	KMAL												MKII (Imp.)	11	9	uni-pivot	uni-pivot	bal.	*		0.3		149.95			*Magnetic antiskate. Mercury contacts, damped unipivot.
LUXMAN	PD-121	B 0.03	-70	direct	12	4	direct		19x6x15	33													499.95			Less tone arm.
MARANTZ	6300	B 0.05	-52	servo	12	6	direct		17x15x7														249.95			W. arm
	6320	B 0.05	-52	servo	12	6	direct		17"x14x7														199.95			W. arm

Keep on trackin'

With an Empire wide response cartridge.



A lot of people have started "trackin'" with Empire cartridges for more or less the same reasons.

More separation: "Separation, measured between right and left channels at a frequency of 1 kHz, did indeed measure 35 dB (rather remarkable for any cartridge)." **FM Guide, The Feldman Lab Report.**

Less distortion: "...the Empire 4000D/III produced the flattest overall response yet measured from a CD-4 cartridge—within ± 2 dB from 1,000 to 50,000 Hz." **Stereo Review.**

More versatile: "Not only does the 4000D/III provide excellent sound in both stereo and quadriphonic reproduction, but we had no difficulty whatever getting satisfactory quad playback through any demodulator or with any turntable of appropriate quality at our disposal." **High Fidelity.**

Less tracking force: "The Empire 4000D/III has a surprisingly low tracking force in the $\frac{1}{4}$ gram to $1\frac{1}{4}$ gram region. This is surprising because other cartridges, and I mean 4 channel types, seem to hover around the 2 gram class." **Modern Hi Fi & Stereo Guide.**

For the complete test reviews from these major audio magazines and a free catalogue, write: Empire Scientific Corp., Garden City, N.Y. 11530. Mfd. U.S.A.

EMPIRE









Check No. 19 on Reader Service Card

Choose the Cartridge Designed to Play Best in Your System

Plays 4 Channel Discrete (CD4)
and Super Stereo

Plays 2 Channel Stereo

Plays All 4 Channel Matrix Systems (SQ, QS, RM)

Model	4000 D/III	4000 D/II	4000 D/I	2000 E/III	2000 E/II	2000 E/I	2000 E	2000
Frequency Response in Hz:	5-50,000	5-45,000	10-40,000	5-35,000	6-33,000	8-32,000	10-30,000	10-28,000
Output Voltage per Channel at 3.54 cm/sec groove velocity:	3.0	3.0	3.0	5.0	5.0	5.0	5.0	5.0
Channel Separation	more than 35dB	more than 35dB	35dB	35dB	35dB	35dB	30dB	30dB
Tracking Force in Grams:	$\frac{1}{4}$ to $1\frac{1}{4}$	$\frac{1}{2}$ to $1\frac{1}{2}$	$\frac{3}{4}$ to $1\frac{1}{2}$	$\frac{1}{2}$ to $1\frac{1}{2}$	$\frac{1}{2}$ to $1\frac{1}{2}$	$\frac{3}{4}$ to $1\frac{1}{2}$	1 to 3	1 to 3
Stylus Tip:	miniature nude diamond with .1 mil tracing radius ™4 Dimensional	miniature nude diamond with .1 mil tracing radius ™4 Dimensional	miniature nude diamond with .1 mil tracing radius ™4 Dimensional	nude elliptical diamond .2 x .7 mil	nude elliptical diamond .2 x .7 mil	nude elliptical diamond .2 x .7 mil	elliptical diamond .3 x .7 mil	spherical diamond .7 mil
For Use In:	turntable only	turntable only	turntable or changer	turntable or changer	turntable or changer	turntable or changer	changer only	changer only
LIST PRICE:	 (White)	 (Yellow)	 (Black)	 (Clear)	 (Blue)	 (Green)	 (Red)	 (Smoke)

Single-Play Turntables

SPEEDS
A - 33, 45, 78 D - 16, 33, 45, 78
B - 33, 45 E - 16, 33, 45
C - 33 only F - Cont. variable

MANUFACTURER	MODEL	Speed (per min.)		Wow & flutter at 33 1/3 (WPM)	Rumble in db (DIN "B")	Motor type	Platter size (dia. in.)	Speed adjustment, %	Drive system (belt, idler)	Speed accuracy, 33 1/3, %	Dimensions in inches	Weight, lbs. (net)	Model (for separate arm)	Overall length, in.	Pivot stylus dia., in.	Vertical bearing type	Lateral bearing type	Stylus force adj. method	Max. tracking error, deg/in.	Anti-skate adjustment?	Arm resonance Hz.	Stylus force range, gms.	Weight, if separate arm, oz.	Price \$	NOTES
PHILIPS	GA209	B	0.055	65	d.c. servo	11 1/2	3	belt	0.5	17x6x13	17		11 1/2	8.5	*	**	ctr. wt.	0.15	yes	7.5	3		299.50	Auto. record size & speed select, start up & arm rtn. *Single roll vert. bearing. **Pivot & bushing lat. bear.	
	GA212	B	0.07	60	d.c. servo	11 1/2	3	belt	0.5	15 1/2x6 1/2x13	13 1/4		11	8.6	*	**	ctr. wt.	0.15	yes	9	3/4		169.50	Auto shutoff. * ** As above.	
	GA427	B	0.14	55	24-pl. sync.	10 1/2		belt	1.0	15 1/2x5x13	9		9 1/2	7.6	*	**	ctr. wt.	0.23	yes	8	1 1/4		99.50	Auto arm return. * ** As above.	
PIONEER	PL-71	B	0.05	60*	d.c. servo	12 1/2	2	direct		18 1/2x7 1/2x16 1/2	24 1/2			8.8	ball	ball	wt.		yes		0.25		299.95	*JIS stds.	
	PL-55X	B	0.05	58*	d.c. servo	12 1/2	2	direct		18 1/2x7 1/2x16 1/2	23 1/2			8.7	ball	ball	wt.		yes		0.25		249.95	*As above.	
	PL-A450	B	0.10	47*	sync	12		belt		18 1/2x6 1/2x16 1/2	22 1/2			8.7	ball	ball	wt.		yes		0.25		169.95	2 motors, auto repeat. *As above.	
	PL-15D/II	B	0.08	48*	sync.	12		belt		17 1/2x6 1/2x14	16 1/2			8.7	ball	ball	wt.		yes		0.35		129.95	Auto return & cue. *As above.	
	PL 12D/II	B	0.08	48*	sync.	12		belt		17 1/2x6 1/2x14	16 1/2			8.7	ball	ball	wt.		yes		0.35		99.95	Cueing; stylus overhang gauge. *As above.	
QUADRAFLEX	QL14	B	0.1	-55	sync.	12 1/2		belt	0.8	17x13x6 1/2	16		11 1/2	8 1/2	ball	ball	bal.	1.2	no	8	0.4		129.95	W. CD-4 cables; strobe markings.	
RADIO SHACK	LAB-100	B	0.09	-58		12		belt		16 1/2x9 1/2x14 1/2	16 1/2						bal. & spg.		yes	9	0.4		99.95	Incl. base, cover, and cartridge.	
ROTEL	RP-10000	B	0.1	47	hys.sync. pulse	12		belt	0.1	18 1/2x13 1/2x7				9 1/2	ball	ball	bal.	1.5	yes		0.4		99.95		
	RP-3000	B	0.05	60	hys. sync	12 1/2	1/5	direct	0.01	18 1/2x13 1/2x7				9 1/2	ball	ball	bal.	1.0	yes		0.4		199.95		
SANSUI	SR-717	B	0.03	-72	d.c.	12	4	direct		20x15 1/2x7	29			9 1/2	*	pivot	bal. wt.		yes		0.3		349.95	*Knife edge vert. bearing.	
	SR-525	B	0.03	-72	d.c.	12 1/2	3.5	direct		18 1/2x15x6	21			8 1/2	*	ball	bal. wt.		yes		0.3		279.95	*As above.	
	FR-3080	B	0.07	-60	sync	12		belt		17 1/2x14x6 1/2	17 1/2			8 1/2	pivot	ball	bal. wt.		yes		0.4		199.95	2 motors; auto or manual operation.	
	SR-313	B	0.06	-62	sync	12		belt		18 1/2x15x7 1/2	12 1/2			8 1/2	*	ball	bal. wt.		yes		0.3		169.95	*As above.	
	SR-212	B	0.10	-58	sync.	12		belt		17 1/2x14x6 1/2	14 1/2			8 1/2	pivot	ball	bal. wt.		yes		0.4		129.95	Automatic start/stop.	
SME (SHURE)												3009 IMP. 3009/S2		9	knife	ball	bal. wgt.		yes	0.1-5	32	140.00		Nondetachable shell.	
													9	knife	ball	bal. wgt.		yes	0.1-5	32	152.00		152.00	Detachable shell.	
SONY	PS-2251	B	0.04	69	A.c. servo	12 1/2	4	direct		7 1/2x19 1/2x16	33		13 1/2	9 1/2	ball	ball	wght.	2.27	yes		0.3		430.00	Also avail. w/o tone arm at \$350.00.	
	PS-4750	B	0.045	70	D.c. servo	13 1/2	4	direct		7x18 1/2x16 1/2	18.3		12 1/2	9 1/2	ball	ball	wght.	2.50	yes	18	0.3		300.00		
	PS-5550	B	0.06	65	D.c. servo	11 1/2	4	belt		5 1/2x18 1/2x15	20		13 1/2	9 1/2	ball	ball	wght.	2.50	yes		0.3		260.00		
	PS-5520	B	0.1	61	hys.sync. induc.	11 1/2		belt		7x17 1/2x5 1/2	18.67		11 1/2	8 1/2	ball	ball	wght.	3.67	yes		0.3		190.00		
	PS-1100	B	0.2			11 1/2		idler		6x17x13 1/2	14.3		11 1/2	8 1/2	ball	ball	wght.		yes		2.5		100.00		
STANTON	8004-II	B	0.07*	60	sync.	12		belt	0.3	13 1/2x14x7	12					Mag.	Mag.	wght.	1.7	yes	7	0.4	199.95	*Wow & fl. DIN 45-507.	
	8004-IV	B	0.07*	60	sync.	12		belt	0.3	13 1/2x14x7	12					Mag.	Mag.	wght.	1.7	yes	7	0.4	224.95	*As above. With 780/400 discrete four-channel pickup.	
STAX (DISCWASHER)												UA 7M	14	9.4	ball	ball	bal.		yes		0.3		185.00	Interchangeable head shells; low-capacitance cables; damped cueing; adj. to platter height.	
TANNOY/MICRO	TM550D	B	0.04	-60	D.C. servo	12.2	6	direct		18 1/2x13 1/2x5 1/2	18		11	8 1/2	ball	needle	bal.	1.5	yes	7	0.3		330.00		
	TM440D	B	0.045	-55	D.C. servo	12.2	6	direct		17 1/2x13 1/2x6	18		11	8 1/2	ball	needle	bal.	1.5	yes	7	0.3		249.00		
	TM33	B	0.045	-50	D.C. servo	11.8		belt		18 1/2x13x5	18		11	8 1/2	ball	needle	bal.	1.5	yes	8	0.3		180.00		
	TM22	B	0.05	-50	sync.	11.8		belt		17 1/2x13 1/2x6	16.5		11	8 1/2	ball	needle	bal.	1.5	yes	8	0.3		138.00		
TECHNICS BY PANASONIC	SP-1011	A	0.025	-70	d.c.	12 1/2		direct	0.002	14 1/2x14 1/2x4													499.95	Crystal-controlled, phase-locked speed.	
	SP-10	B	0.03	-70	d.c.	12	2	direct	0.01	14x14x4	20												449.95		
	SL-1100A	B	0.03	-70	d.c.	13 1/2	5	direct	0.01	15 1/2x20x7 1/2	28											369.95			
	SL-1200	B	0.03	-70	d.c.	13	5	direct	0.01	14x16x7	22											279.95			
	SL-1300	B	0.03	-70	d.c.	13	5	direct	0.01	17 1/2x14 1/2x5 1/2	20 1/2		9					0.22	yes	7-10	0.3		299.95		
THORENS (ELPA)	TD 125	E	0.067	65	sync.	12	2	belt	0.5	18x14x5	32		12	9.06	ball	ball	spg.	0.2	yes	8	0.4		410.00	Also avail. w/o arm.	
	AB Mk II, TD 145 C	B	0.067	55	sync.	12	2	belt	0.5	17x13 1/2x7 1/2	16 1/2		12	9.06	ball	ball	spg.	0.2	yes	8	0.4		299.95	Electronic arm lift & shutoff; w. base, dust cover.	
	TD 160 C	B	0.06	55	sync.	12	2	belt	0.5	17x13 1/2x7 1/2	16 1/2		12	9.06	ball	ball	spg.	0.2	yes	8	0.4		249.95	Incl. base, dust cover.	
	TD 165 C	B	0.06	55	sync.	12	2	belt	0.5	17x12 1/2x7 1/2	20		12	9	ball	ball	spg.	0.2	yes	10	0.4		169.95	Incl. base, dust cover.	
TOSHIBA	SR-355	B	0.04		d.c. servo	12		dir.			26 1/2			8 1/2	pivot	ball	helix	2	yes		0.4		229.95		
	SR-305	B	0.1		sync.	12		belt			14 1/2			8 1/2	pivot	ball	helix	5	yes		0.4		129.95	Auto return, auto cueing.	
	SR-80	B	0.1	50	hys.sync.	12 1/2		belt		19 1/2x16x7	17 1/2				ball	ball	ball	1.5	yes		0.3		299.95	Incl. electret cartridge & equalizer.	
WIN LABS YAMAHA	Lab 10	C	0.06	*	sync. D.C. servo	11 1/2	0	direct	0.1	17 1/2x15 1/2x4	6 1/2		11 1/2	9 1/2	sleeve ball	ball	bal. & spg.		no	5.6	0.3		150.00	*-60 dB, NAB standard.	
	YP-800	B	0.03	70	D.C. servo	11 1/2	3	direct	0.2	18 1/2x6 1/2x14 1/2	27.6							2		9.5	0.3		500.00	Cueing; mirror strobe; dual electronic speed control.	
	YP-701	B	0.08	65	sync. outer rotor	11 1/2		belt		19x16 1/2x6 1/2	20 1/2		12 1/2	1 1/2	ball	ball	bal. & spg.	2.7	yes	9	0.4		220.00	Motor synchronous outer rotor.	

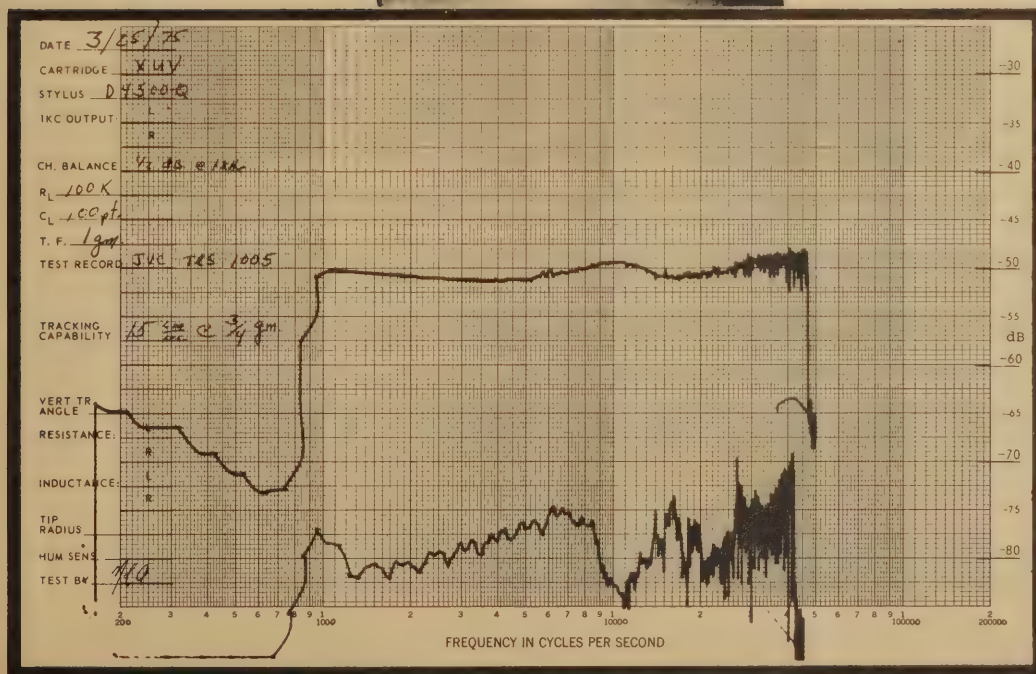
THE SOURCE OF PERFECTION IN SOUND...



...tracks at one gram (or less)
in stereo and discrete

Pickering's engineers pursued the idea of a totally new departure in cartridge design with all the zeal of true crusaders. They had a reason . . . there was a demand for a pickup to play both stereo and discrete (as well as SQ and QS) with *total and absolute precision* at one gram. That they succeeded is a remarkable achievement because this cartridge successfully tracks all types of records at forces even lighter than one gram. It is a real *first* to do it this accurately.

The XUV/4500-Q features Pickering's patented Quadrahedral® stylus assembly. The Quadrahedral stylus assembly incorporates those features that produce extended *traceAbility™* for 4-channel as well as stereo. This means that it possesses not only superior performance in low frequency tracking, but also in high frequency *tracing ability*. When combined with the exclusive Quadrahedron™ stylus tip, a brand new shape, it can truly be called: "the *Source* of perfection in Sound", whether the playback requirement is stereo, SQ, QS, or discrete 4-channel.



a typical curve of the XUV/4500-Q

Shown at left is a printout graph from Pickering's testing apparatus. The top line is a frequency response curve (note that it starts at 1,000 cycles for the sake of simplicity). It depicts the unusually flat frequency response throughout the spectrum. The bottom line, which also starts at 1,000 cycles, shows the separation characteristics of this new cartridge.

Believe us, you have never seen one quite like this because Pickering's exclusive new design development also makes it superior to other cartridges in the playback of stereo records, as well as discrete.

The specifications are so exciting that we hope you will write to Pickering and Company, Inc., Dept. A, 101 Sunnyside Blvd., Plainview, New York 11803 for further information.



Phono Cartridges

MANUFACTURER	MODEL															NOTES	
																STYLUS TYPE	
																S - Spherical E - Elliptical Q - CD-4 capability (Shibata, etc.)	
		Freq. respon., Hz-kHz, ±dB		Stereo sep., 1 kHz, dB	Stereo sep., 10 kHz, dB	Output, 1 kHz, 5 cm/sec., mV	Tracking force range, gmt.	Load resistance, ohms	Recommended Loading capacitance (pF)	Stylus type (see letter code)	Stylus radius (radii) mils	Factory or user stylus replacement?	Weight, gmt.	Price, \$	Replacement stylus price, \$		
ADC	XLM-MKII	15-20 ±1.5	28	22	*	¾-1½	47k	275	E	0.3-0.7	user	5.25	100.00	29.95	*0.9 mV/cm/sec.		
	VLM-MKII	15-20 ±1.5	24	20	*	1-2	47k	275	E	0.3-0.7	user	5.25	75.00	24.95	*As above.		
	Super XLM-MKII Q-36	15-50 +2,-5	28	22	*	¾-1½	47k	100	C	2.0-0.2	user	5.75	125.00	39.95	*0.6 mV/cm/sec.		
	Q-32	15-20 ±3	26		5.5	¾-1½	47k	220	E	0.3-0.7	user	5.75	59.95	24.95			
	Q-30	15-20 ±3	24		5	1-2	47k	220	E	0.3-0.7	user	5.75	49.95	19.95			
	P-36	15-20 ±3	24		5	1-2	47k	220	S	0.5	user	5.75	39.95	15.95			
	P-32	15-20 ±3	26		5.5	¾-1½	47k	220	E	0.3-0.7	user	5.75	39.95	19.95			
	P-30	15-20 ±3	24		5.5	1-2	47k	220	S	0.7	user	5.75	19.95	13.95			
AKG	P8E	10-30	30	25	3.5	¾-1¼	47k	275	E	0.2-0.7	user	6	85.00				
	P7E	10-25	25	20	4.5	1¼-2½	47k	275	E	0.3-0.7	user	6	60.00				
	P6E	10-22	25	14	6.0	1½-3	47k	275	E	0.4-0.8	user	6	40.00				
	P6R	10-22	25	14	6.0	2-4	47k	275	S	0.7	user	6	35.00				
ASTATIC	181d	60-12k ±6	25		150	2-3	143k	100	S	0.7-3.0	user	1.7	14.95	6.45	Ceramic.		
	157d	90-14k ±6	24		165	3-4.5	143k	100	S	0.7-3.0	user	3.4	14.95	6.45	Ceramic.		
	155d	70-11k ±6	23		625	3.5-5	1m	100	S	0.7-3.0	user	3.4	11.95	6.45	Ceramic.		
	139d	90-13k ±6	24		390	4.5-6	500k	100	S	0.7-3.0	user	3.4	13.75	6.45	Ceramic.		
AUDIO-TECHNICA	AT-10	20-20	20	15	4.8	2½-4	47k	100	S	0.7	user	5.5	24.95	12.95			
	AT-11	15-25	20	15	4.8	2-3	47k	100	S	0.7	user	5.5	34.95	17.95			
	AT-11E	15-28	20	15	4.8	2-3	47k	100	E	.4x.7	user	5.5	44.95	24.95			
	AT-12E	15-30	22	17	4.2	1¼-2	47k	100	E	.4x.7	user	5.5	54.95	29.95		High compliance.	
	AT-12S	15-45	25	20	2.7	1-2	47-100k	100	C	*	user	5.5	64.95	36.95		*Shibata.	
	AT-13Ea	15-45	25	20	4.2	1-2	47k	100	E	.2x.7	user	5.8	64.95	34.95			
	AT-14Sa	5-45	25	20	2.7	1-2	47-100k	100	Q	*	user	5.8	75.00	39.95		*Shibata stylus, tapered cantilever, low mass.	
	AT-15Sa	5-45	25	22	2.7	1-2	47-100k	100	Q	*	user	8.0	100.00	50.00		Incl. individual response curve. *As above.	
AT-20SLa	5-50	25	23	2.7	1-2	47-100k	100	Q	*	user	8.0	175.00	85.00		Hand-selected AT15Sa. *As above.		
BANG & OLUFSEN	MMC6000	*	25	20	0.6	0.1-1.5	100k	100	Q	**	***	4	100.00			*Freq. resp. 20-15,000 Hz±1.5 dB. 30-45,000 Hz for CD-4. **Stylus radius 0.7 x 50 microns. ***Not replaceable.	
	SP12	20-15.25 ±3	25	20	1.0	1-1.5	47k	100	E	0.2x0.7	user	8.5	85.00	40.00			
	SP10	20-15.25 ±3	25	20	1.0	1-1.5	47k	100	S	0.2x0.6	user	8.5	75.00	30.00			
	SP14	20-16	20	20	1.0	1-1.5	47k	100	S	0.2x0.6	user	8.5	45.00	22.00			
DECCA (PAOLI)	London Exp. Mk 5	30-18 ±2	25	20	7.5	2.5-3.0	47k	0	S	0.5-0.6	fty.	5.0	145.00	65.00		Response curve suppl. Tip mass under 1.0 milligram.	
	London Mk 5	30-16k	20	18	7.5	2.5-3.0	47k	0	S	0.5-0.6	fty.	5.0	109.50	55.00		Tip mass under 1.0 milligram.	
DECCA (ROCELCO)	London Mk 5 Gold	20-20k			5mV	1-1.5	50k		E	0.3-0.65	fact.	4	149.50	80.00		Sum & difference pickup.	
	London Mk 5 2-g	20-20k			5mV	1-2	50k		S	0.6-0.7	fact.	4	134.50	70.00		Sum & difference pickup.	
	London Mk 5 Export	20-20k			7.5mV	2-3	50k		S	0.6-0.7	fact.	4	125.00	60.00		Sum & difference pickup.	
	London Mk 5	20-20k			7.5mV	2-3	50k		S	0.6-0.7	fact.	4	99.50	50.00		Sum & difference pickup.	
EMPIRE	4000D/III	5-20 ±2*	35	35	3	¼-1¼	100k	100	Q	.2x3	user	7	149.95	74.95		*20k-50k±4dB.	
	4000D/II	5-20 ±2*	30	30	3	¾-1½	100k	100	Q	.2x3	user	7	124.95	62.95		*20k-45k±5dB.	
	4000D/I	5-20 ±2*	25	25	3	1-2	100k	100	E	.2x3	user	7	84.95	42.95		*20k-40k±6dB.	
	2000E/III	10-28k ±2	30	30	5	½-1½	47k	350	E	.2x.7	user	6%	69.95	34.95		All models: output at 3.54 cm/sec.	
	2000E/II	15-26k ±2	30	30	5	¾-1½	47k	350	E	.2x.7	user	6%	54.95	27.95			
	2000E/I	20-23k ±3	30	30	5	1-2	47k	350	E	.2x.7	user	6%	39.95	19.95			
	2000E	20-22k ±3	25	25	5	1¼-3	47k	350	E	.3x.7	user	6%	34.95	17.95			
	2000	20-20k ±3	25	25	5	1½-3	47k	350	S	.7	user	6%	24.95	12.95			
EMT (GOTHAM)	XSD-15	20-15 ±2	25		0.75	2-3	200		S	0.6	fact.	21	300.00			Moving coil, integrated cartridge shell; designed to fit SME 3009 or Sony tonearms. Accessory transformers, (2 required) \$29.95 each.	

All cartridges are not created equal. Here's proof.

“...Tracking ability at low and middle frequencies was exceptional...the high level required half the tracking force of most other cartridges...One of the best 2-channel stereo cartridges and better than most CD-4 types.”

HI-FI NEWS AND RECORD REVIEW

Our new Super XLM MK II (\$125.) is the finest cartridge available. It was engineered solely for the true audiophile and the serious music listener who own the very finest components.

It embodies principles found in no other cartridges, as evidenced by our U.S. Patent. It features a unique “induced magnet” whereby the magnet is fixed and the magnetism is induced into a tiny hollow soft-iron collar. This collar in turn moves between the pole pieces thereby allowing for a major reduction in the mass of the moving system. This LOW MASS permits the Shibata type stylus to trace the most intricate modulations of stereo and CD-4 record grooves with a feather-light tracking force—as low as $\frac{3}{4}$ of a gram.

This results in super-linear pick up especially at the higher frequencies of the audible spectrum, which other cartridges either distort or fail to pick up at all. This low tracking force also assures minimal erosion and a longer playing life for the records.

This family of LOW MASS Cartridges is also offered with elliptical diamond stylus for stereo play exclusively—the XLM MK II (\$100) and VLM MK II (\$75).

For detailed specifications, write ADC.



U.S. PAT. NO. 3294405

ADC Super XLM_{MK II}




**AUDIO
DYNAMICS
CORPORATION**

A BSR Company • New Milford, Conn. 06776

Phono Cartridges

MANUFACTURER	MODEL															NOTES
		Freq. respon., Hz-kHz, ±dB	Stereo sep., 1 kHz, dB	Stereo sep., 10 kHz, dB	Output, 1 kHz, 5 cm/sec., mV	Tracking force range, gms.	Load resistance, ohms	Recommended Loading capacitance (pF)	Stylus type (see letter code)	Stylus radius (radii) mils	Factory or user stylus replacement?	Weight, gms.	Price, \$	Replacement stylus price, \$	STYLUS TYPE S - Spherical E - Elliptical Q - CD-4 capability (Shibata, etc.)	
EV • GAME	5600D 5601D 149D 149DF 6000D	20-15 20-15 100-10 100-10 20-20	20 20 16 16 25	5 5 5 5 10	600 400 450 450 4.4	3-5 2-4 2-4 2-4 4	1 M 1 M 1 M 1 M 47K	100 100 100 100 100	S S E E S	0.7 0.7 .7-.3 .7-.3 0.7	user user user user user	6 7.5 2.7 9.8 6.7	17.95 17.95 12.00 17.50 24.95	11.95 11.95 5.95 5.95 19.50		
FIDELITY-RESEARCH	FR-1/II	20-20 ±2.0	27	21	0.1	1.5-2.5	—	—	E	0.2-0.8	fact.	13	130.00	70.00	Requires stepup xfmr, FRT-4 (\$250) or FRT-3 (\$150).	
GRACE	F-9F F-9E F-9U F-9D F-8F F-8C F-8L	10-60 10-45 10-50 10-35 10-50 15-25 20-20	30 30 30 30 30 30 30	27 25 27 23 27 25 23	3.5 3.5 3.5 3.5 3.5 5.0 5.0	0.5-2 0.5-2 0.5-2 0.5-2 1.0-2.5 0.5-1.5 0.5-2.5	* * * * 100K 47K 47K	80 80 80 80 80 80 80	Q E Q S Q E E	** 0.2x 0.8 ** 0.65 * 0.2x 0.8 0.2x 0.8	user user user user user user user	6 6 6 6 6.5 5.9 6.5	150.00 135.00 100.00 95.00 130.00 95.00 80.00	70.00 62.00 47.00 43.00 60.00 43.00 37.00	CD-4 *30K-100K, **Shibata. Stereo, CD-4. *30K-100K. *30K-100K, **Shibata. *30K-100K. *Shibata.	
ORTOFON	SL-15EMKII M-15E Super M-15 Super VMS-20E F-15E F-15	20-10 ±1 20-10 ±1 20-10 ±1 20-10 ±1 20-10 ±1	25 25 25 25 25 25	20 20 20 20 18 18	5.5* 4.0 4.0 5.0 5.0 5.0	1½-2 ¾-1½ ¾-1½ ¾-1½ 1-2 1-2	47K 47K 47K 47K 47K 47K	— 400 400 400 400 400	E E S E E S	0.3-0.7 0.3-0.7 0.6 0.3-0.7 0.3-0.7 0.6	fact. user user user user user	7 5 5 5 5 5	100.00 90.00 80.00 65.00 50.00 40.00	50.00 45.00 35.00 35.00 25.00 20.00	*When used with Ortofon STM-72 transformer, \$35.00.	
PICKERING	XUV-4500Q 4-chan. UV15-2400Q 4-chan. UV15-2000Q 4-chan. XV15/1200E XV15/400E UV15/750E Micro 4 AME	10-50 10-50 20-45 10-30 10-25 10-25 20-20	35 35 30 35 35 35 30	 3.8* 3.8* 25 25 25 24	3.4 3.8* 3.8* 4.4* 5.5* 4.4* 5.5*	½-1¼ 1-3 1-3 ½-1¼ 1-2 ½-1½ 1-2	100K 47K 47K 47K 47K	 E E E E E E	Q Q Q 0.2x 0.7 0.2x 0.7 0.4x 0.7 0.4x 0.7	user user user user user user	6½ 5 5 5 5 5	139.95 124.95 69.90 79.95 54.95 65.00 49.95	 79.95 54.95 65.00 49.95	W. brush. *At 5.5 cm/sec. w. brush. *As above. *As above. *As above. *As above. *As above.		
PIONEER	PC-Q1(Q)	10-50K	25	—	—	1-2.1	100K	100	C*	—	user	—	69.95		*Parabolic stylus.	
SHURE	V-15 III M95ED M91ED M75ED-2 M93E M55E M44E	10-25 20-20 20-20 20-20 20-20 20-20 20-20	28 25 25 25 25 25 25	20 3.5 4.7 5.0 5.0 6.2 6.6 9.3	¾-1¼ ¾-1¼ ¾-1¼ 1½x3 1½x5 ¾x2 1¾x4	47K 47K 47K 47K 47K 47K 47K	 E E E E E E	E E E E E E E	.7x.2 .7x.2 .7x.2 .7x.4 .7x.4 .7x.2 .7x.4	user user user user user user user	6 6 5.5 6 6 7 7	77.50 59.95 54.95 44.95 39.95 29.95 24.95	29.00 27.00 26.00 26.00 19.50 14.95 12.50	Built-in, snap-down stylus guard.		
SONIC RESEARCH	Blue Label Red Label Green Label	5-25 5-22 5-20	30 30 30	25 25 25	4 4 4	¾-1¼ ¾-1¼ ¾-1¼	47K 47K 47K	100 100 100	C E S	— .3-8 .5	user user user	5 5 5	115.00 95.00 80.00	58.00 38.00 22.00	Response to 50 kHz. Fully calibrated version avail. on spec. order \$175.	
STANTON	780/4DQ 780/Q 681-EEE 681-EE 600-EE 500-EE	10-50 10-45 10-22 10-20 ±¼ 20-20 20-20	35 30 35 35 35 35	 3.3* 3.8* 26 1.0 1.0	3.3* 3.3* 3.8* 0.82 1.0 1.0	1½-2½ 1½-2½ ¾-1½ ¾-1½ 1-2 1-2	 47K 47K 47K 47K	 E E E E	Q Q 0.2x 0.7 0.2x 0.7 0.3x 0.7 0.3x 0.7	user user user user user user	5 5 5 5 5 5	125.00 75.00 82.00 72.00 55.00 40.00	 82.00 72.00 55.00 40.00	*At 5.5 cm/sec. w. brush. *As above. *As above. Indiv. calibra.		
SUPEX	SD-900/E SD-901/E	5-40 ±1.5 5-30 ±1.5	27 25	25 21	0.2 3.5	1-1.5 1.0-3.0	— 47K	— 80	E E	0.3-0.8 0.3-0.8	fact. fact.	10 10	125.00 145.00	67.50 75.00	Requires stepup xfmr. SDT-180 (\$150) or SDT 77 (\$100). Moving coil, needs no step-up xfmr.	
WIN LABORATORIES	SDT-10	0-50	30	20	200	¾-1½	400	10-500	Q		user	1.5	199.00		*Shibata for two channel; semi-conductor type cart. includes power source.	



SONUS

STEREO PHONO CARTRIDGE

**suddenly there is
the definition
you have never been
able to get before!**

AH! DEFINITION—That elusive quality of clearness and accuracy never quite attainable before. (If you can't extract it at the point of contact with the record, the rest of your equipment won't deliver it to you.)

The design philosophy of the SONUS cartridge is to use the latest refinements in material and techniques to convert the motion of the record groove into a precise electrical replica, thus assuring the highest possible sonic accuracy and definition.

The electromagnetic structure of the cartridge is exceptionally efficient and has been arranged in such a way that the point of transduction is placed as close as possible to the record surface. This enables the distance from the stylus tip to the energized armature to be kept extremely short, thereby minimizing the chances of the motion being significantly changed, and/or extraneous resonances introduced. It further enables the moving element to be kept exceedingly light and rigid. Indeed, we believe the total moving structure to be lighter than that of any other magnetic cartridge of which we are aware.

Great care has been taken with the cartridge geometry, not only to minimize vertical tracking error but also to ensure accurate transmission of the stylus motion to the generating armature. This has been

achieved by (among other things) positioning the stylus tip on the same axis as the armature so that none of the stylus motion is lost in rotation or affected by any possible rotational resonances.

The stylus pivot is located at the dynamic center of rotation of the moving system and is fabricated from material having optimum elastomeric properties, providing an extremely linear and highly compliant suspension.

In sum, we have a transducer system characterized by reproduction of exceptional accuracy, clarity and definition, and capable of perfect tracking and tracing at very low stylus forces.

Write to SONUS customer service for full line catalog and the name of the franchised dealer nearest you.

Your franchised dealer will be happy to demonstrate the superior qualities of this cartridge.



SONIC RESEARCH INC.

27 Sugar Hollow Rd., Danbury, Ct. 06810

Check No. 64 on Reader Service Card

Open-Reel Tape Recorders

SPEEDS BY LETTER CODE:

	A	B	C	D	E	F	G	H	J
15					x	x	x		
7 1/2	x	x	x		x	x	x		
3 3/4	x	x	x		x		x	x	
1 7/8	x		x	x			x	x	
1 5/16		x							

MANUFACTURER	MODEL	Speeds (see letter code)	Max. reel size, in.	No. of heads	No. of tracks	No. of channels	No. of motors	Drive motor type	Drive to capstan	Freq. response Hz-kHz \pm dB	Wow & flutter % (W RMS) *	S/N ratio * (std. tape)	Output level for 0 dB (mV)	Mic. mixing?	Mic. input Z, ohms	Record level indicators, type & qty.	Dimensions, in.	Weight, lbs.	Price, \$	NOTES (D) after price indicates Dolby included. * At the highest speed
AKAI	GS-400D-SS 4-chan.	E	10	4	4	4/2	3	a.c. servo	direct	20-26 \pm 3	0.035	52		yes	4.7k	meters, 4	18x23x9	68	1495.00	
	GX-630D-SS 4-chan.	B	10	4	4	4/2	3	a.c. servo	direct	30-24 \pm 3	0.06	52		yes	10k	meters, 4	18x17x9	42	995.00	
	1730D-SS 4-chan.	B	7	4	4	4/2	1	hys. sync.	belt	30-22 \pm 3	0.12	50		no	30k	meters, 4	16x4x9	19	479.95	
	GX-650D	E	10	3	4	2	3	a.c. servo	direct	30-30 \pm 3	0.04	58		yes	10k	meters, 2	20x17x10	57	995.00	
	GX-630DB	B	10	3	4	2	3	a.c. servo	direct	30-25 \pm 3	0.06	57		yes	10k	meters, 2	18x17x9	42	775.00D	Includes Dolby.
	GX-630D	B	10	3	4	2	3	a.c. servo	direct	30-29 \pm 3	0.06	57		yes	10k	meters, 2	18x17x9	41	695.00	
	GX-265D	B	7	6	4	2	3	a.c. servo	direct	30-25 \pm 3	0.06	56		yes	5k	meters, 2	17x15x8	36	675.00	
	GX-270D	B	7	3	4	2	3	a.c. servo	direct	30-23 \pm 3	0.07	60		yes	4.7k	meters	17x15x8	34	599.95	
	GX-230D	B	7	3	4	2	3	a.c. servo	direct	30-25 \pm 3	0.07	60		yes	4.7k	meters, 2	17x15x8	33	499.95	
	4000 DB	B	7	3	4	2	1	ind.	belt	30-23 \pm 3	0.15	55		yes	4.7k	meters, 2	16x12x7	26	379.95D	Includes Dolby.
	4000 DS	B	7	3	4	2	1	ind.	belt	30-23 \pm 3	0.15	50		yes	4.7k	meters, 2	15x12x7	25	299.95	
	4400	B	7	3	4	2	1	ind.	belt	30-22 \pm 3	0.15	50		yes	5k	meters, 2	16x14x7	30	399.95	
	1722W	B	7	2	4	2	1	ind.	belt	30-21 \pm 3	0.14	50		no	100k	meters, 2	14x14x9	29	399.95	
CROWN	SX-724	B	10%	3	4	2	3	hys.	belt	20-25 \pm 2	0.09	60	2.45	yes	350k	2 meters	19x9x15%	45	1195.00	
	SX-824	*	10%	3	4	2	3	hys.	belt	20-25 \pm 2	0.09	60	2.45	yes	350k	2 meters	19x9x15%	48	1595.00	*B or F option
	CX-824	*	10%	3	4	2	3	hys.	belt	40-30 \pm 2	0.06	60	2	yes	350k	2 meters	19x9x17%	52	1995.00	*As above.
	SX-822	*	10%	3	2	2	3	hys.	belt	30-30 \pm 2	0.06	60	2.45	yes	350k	2 meters	19x9x17%	52	1995.00	*As above.
	SX-744 4-chan.	B	10%	3	4	4	3	hys.	belt	20-25 \pm 2	0.09	60	2.45	yes	350k	4 meters	19x9x21	51	1995.00	
	CX-844 4-chan.	E	10%	3	4	4	3	hys.	belt	40-30 \pm 2	0.06	60	2	yes	350k	4 meters	19x9x24%	64	2995.00	
DOKORDER	1140 4-chan.	F	10%	3	4	4	3	hys. sync.	belt	30-23 \pm 3	0.04	60	1	no	10k	4 meters	17 1/2x20 x15%	58	1199.95	Multi-sync, full logic control, motion sensing, variable bias.
	1120	B	10%	3	4	2	3	hys. sync.	belt	30-22 \pm 3	0.06	60	1	yes	10k	2 meters	17 1/2x17 x6%	49	649.95	Convertible to 2-track. Separate eq. & bias control, cueing, peak-ind. lights.
	8140 4-chan.	B	7	3	4	4	3	hys. sync.	belt	30-23 \pm 3	0.07	58	1	yes	10k	4 meters	17x17% x6%	41	749.95	Multi-sync, echo, sound-on sound, solenoid controls, bias select.
	7140 4-chan.	B	7	3	4	4	3	hys. sync.	belt	30-23 \pm 3	0.08	58	1	yes	10k	4 meters	17x17% x6%	41	629.95	Multi-sync, echo, sound-on sound, echo, tape-source monitoring.
	7100	B	7	3	4	2	3	hys. sync.	belt	30-23 \pm 3	0.08	58	1	yes	10k	2 meters	17x17% x6%	40	399.95	Multi-sync, sound-on sound, tape-source monitoring, bias select, solenoid controls.
	9200	B	7	6	4	2	3	hys. sync.	belt	30-24 \pm 3	0.06	55	1	yes	10k	2 meters	17 1/2x20 x15%	55	949.95	Bi-directional record, auto-reverse play, playback, full-logic controls, bias control.
FERROGRAPH (ELPA)	7502AHW	E	10%	3	2	2	3	ind.	idler	30-20 \pm 2	0.08	55	2	yes	10k	2 meters	20 1/2x10 x17%	55	1025.00	Dolby B \$125; pwr. amp & spkrs \$50.
	7504AW	A	10%	3	4	2	3	ind.	idler	30-20 \pm 2	0.08	55	2	yes	10k	2 meters	20 1/2x10 x17%	55	1025.00	Same options.
JVC	RD-1696	A	7	2	4	2	1	ind.	idler	30-18 \pm 3	0.09	54	0.3	no	10k	2 meters	15 1/2x7% x12%	19	249.95	
	4RD-1406	B	7	2	4	4	1	ind.	belt	30-18 \pm 3	0.07	54	0.3	no	10k	4 meters	16x13% x7%	28 1/2	379.95	
NAGRA	1V-SL	E	7	4	2	2	1	d.c. servo	direct	30-20 \pm 1	0.02	71	1V	yes	50, 100, 200	2 meters	13x9 1/2x4%	11 1/2	4151.00	Powers 4 types cond. mikes. Opt. film sync or FM 3rd chan.
	1S-D		5	4	1	1	3	d.c. servo	direct	50-15 \pm 2	0.07	70	4.4V	yes		meter	10 1/2x8x3	8 1/2	2927.00	Opt. film sync; D-cell powered.
	4.2L	E	7	4	2	1	1	d.c. servo	direct	30-20 \pm 1.5	0.02		4.4V	yes		meter	13x9 1/2x4%	11 1/2	3422.00	As above.
	SNN	H	2 1/2	3	1	1	1	d.c. servo	direct	80-15 \pm 2	0.07	63	630	no	200	meter	5 1/2x1x1	1	2129.00	Penlight cell powered for 7 1/2 hours record. time.
	IV-SJ	G	7	4	3	2	1	d.c. servo	direct	2.5-35 \pm 1.5	0.02	62	1V	no		2 meters	13x9 1/2x4%	12 1/2	5234.00	D-cell powered; step input atten.; acous. wgt. filters, inter. power for meas. mikes.



Entente Cordiale

A friendly understanding.

A phrase that perfectly describes the relationship between Revox tape recorders and Beyer microphones. One fine piece of equipment uniquely complementing another.

Wherever you go, you'll find these two thoroughgoing professionals working together. On location and in the most demanding studio situations.

Both Revox and Beyer are expressions of the same European dedication to meticulous craftsmanship and superior technology.

For example, take the new Revox A77 Mk IV. It's the successor to the critically acclaimed Revox A77, the machine that moved Stereo Review to comment, "We have never seen a recorder that could match the performance of the Revox A77 in all respects, and very few that even come close."

Or take the new Beyer M500 microphone. You've never used anything quite like it. It combines the sharp attack of a condenser and the sturdy reliability of a moving coil with the unduplicatable presence of a ribbon.

And Beyer makes a number of other microphones to satisfy virtually any broadcasting or recording requirement.

Together or separately, these sophisticated instruments provide the ideal solution to the problem of versatile, high quality, low cost recording.

Your nearest Revox-Beyer dealer will be pleased to demonstrate any of these fine products for you.

After that, you can arrive at your own friendly understanding.

For additional information and complete technical specifications, write: Revox Corporation, 155 Michael Drive, Syosset, New York 11791.

Illustrations may contain optional extras.

London: Lamb House, Church St., Chiswick W4 2PB. Switzerland: Regensdorf 8105 ZH, Althardstrasse 146.

Also available in Canada.

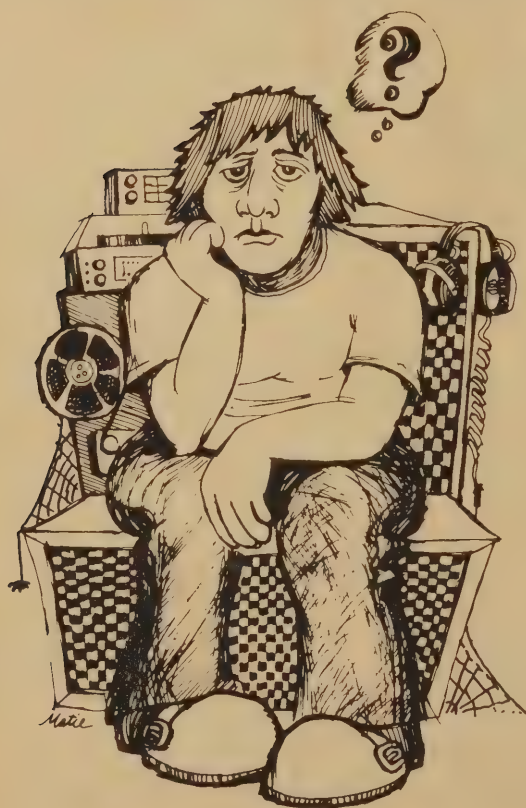
Check No. 56 on Reader Service Card

Open-Reel Tape Recorders

SPEEDS BY LETTER CODE:

	A	B	C	D	E	F	G	H	J
15				x	x	x			
7 1/2	x	x	x	x	x	x	x		
3 3/4	x	x	x	x	x	x	x	x	
1 7/8	x	x	x	x	x	x	x	x	
1 5/16	x								

MANUFACTURER	MODEL	Speeds (see letter code)	Max. reel size, in.	No. of heads	No. of tracks	No. of channels	No. of motors	Drive motor type	Drive to capstan	Freq. response Hz, \pm dB	Wow & flutter % (w/ RMS)*	S/N ratio* (std. tape)	Output level for 0 dB(mV)	Mic. mixing?	Mic. input Ω , ohms	Record level indicators type & qty.	Dimensions, in.	Weight, lbs.	Price, \$	NOTES (D) after price indicates Dolby included. * At the highest speed
OTARI	MX-5050-2SH	E 10%	4	2	2	3	hys. sync.	belt	35-22 \pm 2	0.05	68	400	yes	50k	2 meters		50	1450.00		
	MX 5050-QX	E 10%	4	4	4	3	hys. sync.	belt	35-22 \pm 2	0.05	65	400	yes	50k	4 meters		60	2050.00		Sync reproduce; motion-sense logic.
	MX-5050-4SL	B 10%	4	4	2	3	hys. sync.	belt	30-18 \pm 2	0.06	65	400	yes	50k	2 meters		50	1420.00		
	MX-5055-2SH	E 10%	4	2	2	3	d.c. servo	direct	35-22 \pm 2	0.05	68	400	yes	50k	2 meters		50	1650.00		As above.
PIONEER	RT-1050	F 10%	3	2	2	3	hys. sync.	belt	30-22 \pm 3	0.04	57	316	yes	20k	2 meters	18x9 1/2x18	49	699.95		Optional 4-tr.; peak ind.; 4-step eq.; 3-pos. bias.
	RT-1020H 4-chan.	F 10%	3	4	2/4	3	hys. sync.	belt	30-22 \pm 3	0.04	55	316	yes	20k	2 meters	17 1/4x9x17	46 1/2	649.95		3-step equal.; 2-step bias; 4-ch. playback; lockable pause; mike & line inputs.
	RT-1020L 4-chan.	B 10%	3	4	2/4	3	hys. sync.	belt	40-20 \pm 3	0.08	55	316	yes	20k	2 meters	17 1/4x9x17	46 1/2	649.95		4-ch. playback; bias & eq. select; output level controls.
	RT-1011L	B 10%	3	4	2	3	hys. sync.	belt	40-20 \pm 3	0.08	55	316	yes	20k	2 meters	17x9x17	41	599.95		Bias & eq. select: lockable pause.
RADIO SHACK	999B	A 7	3	4	2	1	ind.	idler	40-20	0.2	45	77	yes	10k	2 meters	16x13 1/4x7 1/2	22	259.95		
REVOX	A77	* 10	3	*	2	3	a.c. servo	direct	30-20 \pm 2%	0.06	66	1.5	*	100k	2 meters**	17x14 1/2x7 1/4	34	959.00		*Choice of two; 2 or 4 tracks; mike mix in mono; w. Dolby \$1172.00.
	A700	E 10	3	*	2	3	a.c. servo	direct	30-20 \pm 2%	0.06	66	1.5	yes	50/600	2 meters**	19 1/2x19x7	54	1800.00		**Peak ind. light. ***As above, but stereo mike mixing.
TANDBERG	9200X	A 7	3	4		3	hys. sync.		30-22 \pm 2	0.06	73*			50-600	2 meters	15 1/2x7x16	34	1049.00D		*Weighted, w. Dolby. 9100X, less Dolby, \$899.00.
	3600X	A 7	3	4		1	induc.		30-22 \pm 2	0.07	73*			50-600	2 peak meters	15 1/2x7x16	20	699.00D		*Weighted, w. Dolby.
	3500X	A 7	3	4		1	induc.		30-22 \pm 2	0.07	64			50-	2 peak meters	15 1/2x7 1/4x16 1/4	20	549.90		



Audio Classified Ads

Want to buy, trade or sell components? Want to offer or buy a service? Want a job in the audio field? Your ad belongs in Audio. Rates are low—results high.

RATES: Commercial, 60¢ per word; situation wanted or non-commercial, 35¢ per word. We reserve the right to determine classification as commercial or non-commercial. **Payment must accompany all orders.**

Place your ad today!

Send copy to:
Audio Magazine
 134 N. 13th Street
 Phila., Pa. 19107
 Attn: Classified Dept.

MANUFACTURER	MODEL	Speeds (see letter code)										Drive motor type	Drive to capstan	Freq. response Hz-Hz \pm dB	Wow & flutter % (W RMS)*	S/N ratio* (std. tape)	Output level for 0 dB(mV)	Mic. mixing?	Mic. input Z, ohms	Record level indicators, type & qty.	Dimensions, in.	Weight, lbs.	Price, \$	NOTES (D) after price indicates Dolby included. * At the highest speed
		Max. reel size in.	No. of heads	No. of tracks	No. of channels	No. of motors																		
TEAC	A-2300S	B	7	3	4	2	3	hys. sync.	idler	40-24 \pm 3	0.08	65	0.3	yes	10k	2 meters	18x9x16	40	549.50					
	A-2300SD	B	7	3	4	2	3	hys. sync.	idler	40-24 \pm 3	0.08	74	0.3	yes	10k	2 meters	18x9x16	40	739.50D					
	A-3300S	B	10	3	4	2	3	hys. sync.	idler	40-24 \pm 3	0.06	65	0.3	yes	10k	2 meters	18x9x18	44	699.50					
	A-3300S2T	F	10	3	2	2	3	hys. sync.	idler	30-26 \pm 3	0.04	67	0.3	yes	10k	2 meters	18x9x18	44	749.50					
	A-3340S 4-chan.	F	10	3	4	4	3	hys. sync.	idler	35-22 \pm 3	0.04	65	0.775	yes	10k	4 meters	18x9x21	50	1199.50					
	A-4300	B	7	4	4	2	3	hys. sync.	idler	40-24 \pm 3	0.06	65	0.3	yes	10k	2 meters	18x9x20	51	699.50					
	A-6100	F	10	4	2	2	3	hys. sync.	idler	30-26 \pm 3	0.04	67	*	yes	10k	2 meters	18x9x21	49	1049.50	*0.775/0.3				
	A-6300	B	10	4	4	2	3	hys. sync.	idler	40-24 \pm 3	0.06	65	0.3	yes	10k	2 meters	18x9x21	49	1099.50					
	A-7300	B	10	3	4	2	3	hys. sync. direct		40-24 \pm 3	0.05	65	0.775	yes	10k	2 meters	18x10x22	62	1399.50					
	A-7300 2T	F	10	3	2	2	3	hys. sync.		30-26 \pm 3	0.04	67	0.775	yes	10k	2 meters	18x10x22	62	1449.50					
TECHNICS BY PANASONIC	RS-1030US 4-chan.	F	10	4	2*	2	3	hys. sync.	belt	25-26k \pm 3	0.08	58	500	yes	600/50k	2 meters	16 $\frac{1}{2}$ x11 x23 $\frac{1}{4}$	70%	999.95	*4-Chan. PB. Tape select. Opt. remote contrl				
TELEFUNKEN	M-12	B or F	10 $\frac{1}{2}$	3	2	2	3	hys. sync.	belt	20-25 \pm 1.0	*0.015*	65		yes	200	2 meters	19x17 $\frac{1}{2}$ x8 $\frac{1}{4}$	55	4435.00	*DIN 45507.4-position mixer w/ phantom powering condenser mikes. Sintered ruby tape guides. Avail. w/o mixer, & in mono. Built-in tape timers.				
TOSHIBA	PT-884	A	7	3	4	4	1	cond.	belt	50-20	0.09	56			10k	4 meters	15x8 $\frac{1}{4}$ x16 $\frac{1}{4}$	33	499.95	4-channel, incl. tape bias control.				
	PT-862D	A	7	3	4	2	1	cond.	belt	20-25	0.09	56			10k	2 meters	15 $\frac{1}{4}$ x7 $\frac{1}{2}$ x14	26 $\frac{1}{2}$	309.95	Tape bias control, auto shutoff.				
UHER	SG-560	C	7	3	2 $\frac{1}{4}$	2	1	hys. sync.		20-22 \pm 3	0.02	68		yes	200	2 meters	17 $\frac{1}{4}$ x13 $\frac{1}{4}$ x7 $\frac{1}{4}$	30	972.75	Incl. spkrs, power amps.				
	SG-520	A	7	2	2 $\frac{1}{4}$	2	1			30-20 \pm 3	0.02	65		yes	200	2 meters			654.50					
	4400 Report IC	C	5		4	2				35-20	0.15	62		yes	200	2 meters			610.00	A.c./d.c., various opt. accessories. As above.				
	4400 Report IC	C	5		2	2				35-20	0.15	64		yes			11x9x3 $\frac{3}{4}$	9	673.25					

GO PROFESSIONAL!

Go Otari MX-5050

Otari's new MX-5050 is a compact professional recorder that's scaled down in size but not in performance or features. Make no mistake. The Otari MX-5050 is not another hi-fi recorder. Instead, it's a creative working tool for the professional recording engineer.

The MX-5050 is designed to handle a wide spectrum of professional recording and production assignments: audiovisuals, broadcast programming, rock groups, high school and college bands, church and religious recording, drama classes, and local theater groups.

Look at the professional recording features the Otari MX-5050 has to offer: two or four channels, front panel edit and cue, precision mounted splicing block on head cover, synchronous reproduce for over-dubbing, motion sense to prevent tape damage, XL connectors, 600 ohm + 4dB output, balanced line transformers, built-in mic preamps, extra reproduce head (1/4 or 1/2 track) on two channel version, plus much more.

Go professional. Go Otari.

OTARI

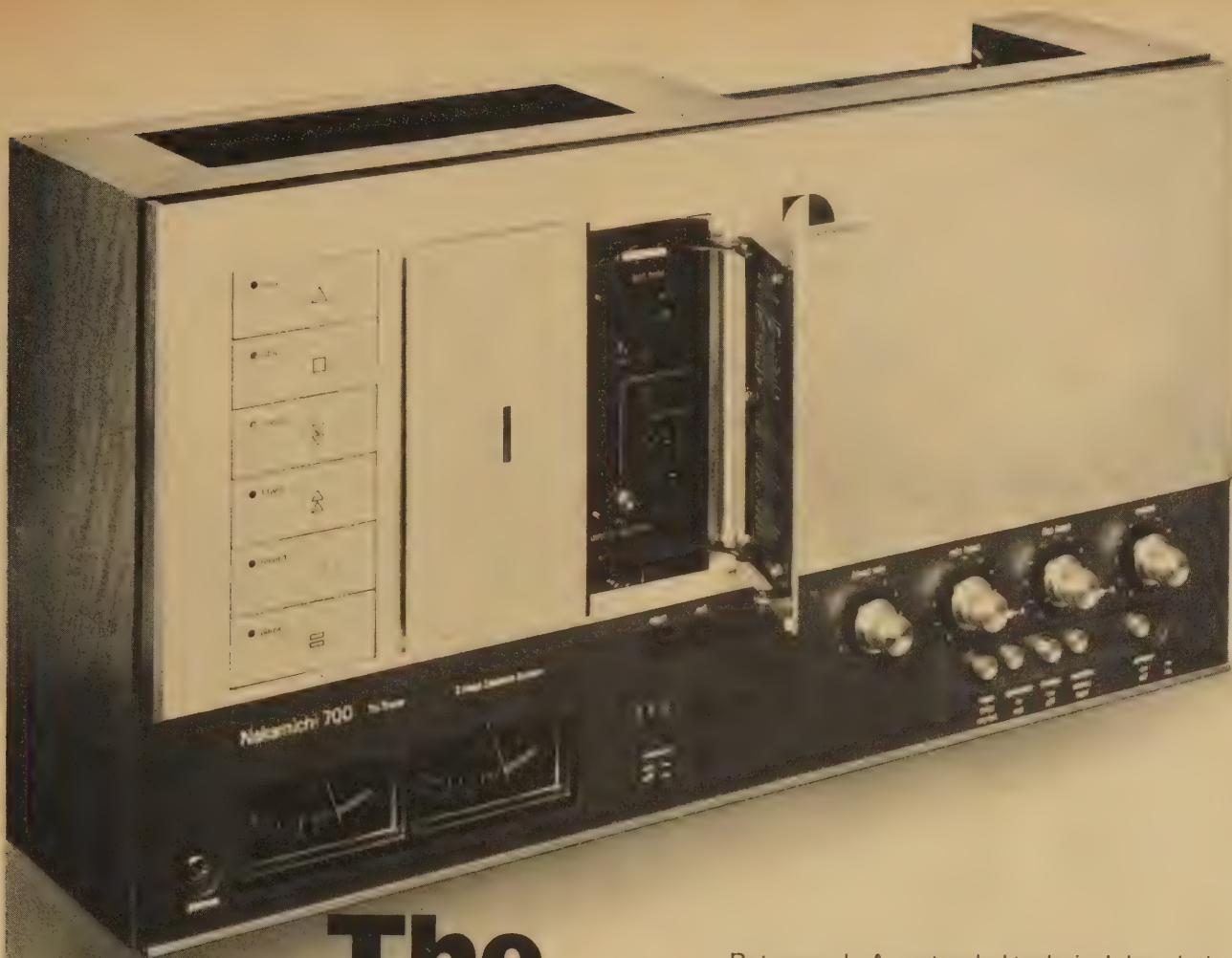
Otari Corporation
981 Industrial Road
San Carlos, Calif. 94070
(415) 593-1648
In Canada: Noresco Mfg.,
Toronto

Check No. 44 on Reader Service Card



Cassette & Cartridge Tape Decks

MANUFACTURER	MODEL	If cassette, no. tracks	If cartridge tape, Channels, 1, 2, or 4	Freq. Response, Hz-kHz ± 2 dB (standard app)	Freq. response, Hz-kHz ± 2 dB	Wow and flutter, % (w/o RMS)	S/N ratio, dB, w/o Dolby	S/N ratio, dB, with Dolby	Cr-O ₂ bias & equal.?	LN bias & equal.?	Mic. mixing? no. inputs	Memory rewind?	Does unit record?	VU meters? (number?)	Peak level indicator (p)?	Dimensions, in.	Weight (lbs. (net)	Price, \$	NOTES (D) after price indicates Dolbyized. (Q) with model number indicates 4-channel.
ADVENT	201	X	2	20-14 ± 2	20-15k ± 2	0.15	54	60	yes	yes	no	yes	yes	1	yes	13% \times 9% x4%	18	339.95(D)	Auto shutoff.
AKAI	GX-710D	X	2	30-14 ± 3	30-16 ± 3	0.08	50		yes	yes	no	yes	yes	2	yes	17% \times 12 5%	20	395.00(D)	
	GX-510D	X	2	30-14 ± 3	30-16 ± 3	0.08	50	58	yes	yes	yes,2	no	yes	2	no	16% \times 10 5%	15	349.95(D)	
	GX-325D	X	2	30-15 ± 3	30-16 ± 3	0.055	51		yes	yes	yes,2	yes	yes	2	yes	17% \times 11% x5%	19	475.00(D)	
	GXC-310D	X	2	30-14 ± 3	30-16 ± 3	0.07	50		yes	yes	no	yes	yes	2	yes	17% \times 11% x5%	19	375.00(D)	
	GXR-82D	X	2	30-14 ± 3	30-16 ± 3	0.07	50		yes	yes	no	yes	yes	2	yes	13% \times 10 x5%	18	249.95	
	GXC-75D	X	2	30-14 ± 3	30-16 ± 3	0.1	50	58	yes	yes	no	yes	yes	2	no	18% \times 12 x5%	18	449.95(D)	
	GXC-39D	X	2	30-14 ± 3	30-16 ± 3	0.08	50		yes	yes	no	yes	yes	2	yes	17% \times 9 x4%	13	249.95(D)	
	CS-34D	X	2	40-13 ± 3	40-15 ± 3	0.13	52		yes	yes	no	no	yes	2	no	15% \times 9 x4%	11	199.95(D)	
	CR8080DSS	8		30-16 ± 3	—	0.25	47		no	no	no	no	yes	4	no	19% \times 11 x5%	26	349.95	
BSR	TD8SW-2	8	2	50-15 ± 4		0.3	40				no	no	no	—	no	10% \times 8 x4	5%	59.95	
BANG & OLUFSEN	Beocord 2200	X	2	30-14.5 ± 1.5	30-14.5	0.2	52	61	yes	yes	yes,1	yes	yes	2	yes	19% \times 9	12	485.00(D)	
CONCORD (Benjamin)	CD-1000	X	2		30-16 ± 3	0.09		58	yes	yes		yes	yes	2		16% \times 12% x6	22	379.95(D)	Front load; solenoid keys; auto stop.
CRAIG	2712	X	2	40-12	40-15	0.25	40	50	yes	no		yes	yes	2	no	11% \times 3% x9	5%	159.50(D)	
DOKORDER	MK-50	X	2	30-15	30-18	0.1	50	60	yes	yes	no	no	yes	2	no	4% \times 16 x11%	13	199.95(D)	Servo motor; cue & review; pause control; auto shutoff.
DUAL		X	2	20-16.5 ± 3	20-17 ± 3	0.07	51	60	yes	no	no,2	no	yes	2	yes	16% \times 11% x4%	15%	450.00(D)	Auto reverse; cont. play; bidirect. rec; adj. ALC.
HEATH	AD-1530	X	2	40-12 ± 3	40-14 ± 3	0.25	48	58	yes	yes	no,2	no	yes	2	no	14% \times 9% x5%	14	269.95(D)	Hi level & mike inputs; Dolby test.
	AD-110	X	2	30-12 ± 3		0.25	45	—	no	yes	no,1	no	yes	2	no	13 5/8 x11x 3 1/8	8	154.95	
HITACHI	D-2330	X	2	40-12 ± 6	40-14 ± 6	0.18	50	58	yes		yes,2	no	yes	2	no	13% \times 8% x3%	6	149.95(D)	Review-cue.
	D-2360	X	2	30-14 ± 6	30-16 ± 6	0.13	50	58	yes		yes,2	no	yes	2	no	15% \times 9% x3%	10%	199.95(D)	All-ferrite head.
	D-3500	X	2	20-15 ± 6	20-20 ± 6	0.05	55	63	yes		yes,2	yes	yes	2	yes	17% \times 11% x5%	15%	399.95(D)	3 heads; double Dolby; full auto-stop.
	D-135	8	2	40-12 ± 6	—	0.16	—	—			yes,2	—	yes	1	no	14% \times 10 x4%	9%	139.95	
JVC	CD-1655	X	2	50-12 ± 3	50-14 ± 3	0.15	50	—	yes	no	no	no	yes	2	no	15% \times 9% x4%	8%	149.95	
	CD-1656	X	2	50-12 ± 3	50-14 ± 3	0.13	50	55*	yes	no	no	no	yes	2	no	15 1/8% 9% \times 4%	9%	229.95	*W. ANRS, JVC's noise reduction system.
	CD-1667-2	X	2	30-13 ± 3	30-16 ± 3	0.12	50	55*	yes	no	no	no	yes	2	no	15% \times 10% x4%	10%	279.95	*As above.
	CD-1669	X	2	30-13 ± 3	30-16 ± 3	0.07	50	55*	yes	yes	no	no	yes	2	yes	16% \times 12 x5%	19%	499.95	*As above.
	CD-1950	X	2	40-15 ± 3	30-16 ± 3	0.10	52	57*	yes	no	no	no	yes	2	no	16% \times 11% x5%	16%	279.95	*As above.
	CD-1960	X	2	40-15 ± 3	30-16 ± 3	0.09	53	58*	yes	no	yes	no	yes	2	yes	16% \times 11% x5%	18%	399.95	*As above. Sen-Alloy head.
	CD-1669-2	X	2	40-15 ± 3	30-16 ± 3	0.07	54	59*	yes	yes	no	no	yes	2	yes	16% \times 12% x5%	19%	499.95	*As above. Sen-Alloy head.
	ED-1240		2	40-12 ± 3	—	0.12	50	—	—	—	no	no	yes	2	no	13% \times 9% x4%	11	169.95	
	ED-1245		2	30-14 ± 3	—	0.12	50	55*	—	—	no	no	yes	2	no	13% \times 9% x4%	13%	249.95	*As above.
	(Q) 4ED-1205		4	40-12 ± 3	—	0.18	50	—	—	—	no	no	yes	2	no	16% \times 11 x4%	16%	229.95	
	ED-1230		2	70-12 ± 3	—	0.17	50	—	—	—	no	no	yes	0	no	11% \times 9% x4%	7%	109.95	
	ED-1103		2	50-10	—	0.25	45	—	—	—	no	no	no	0	no	8% \times 8% x4	6%	49.95	



The Nakamichi Revolution

An extravagant statement? Not at all.

For the Nakamichi 700 Tri-Tracer cassette system is so completely different from anything that has gone before that it truly represents a quantum jump in cassette technology.

A brilliantly engineered instrument, the Nakamichi 700 is an extraordinary blend of electronic and mechanical sophistication.

To cite a few innovative examples, three separate heads—erase, record, playback—afford off the tape monitoring, but more importantly, extend flat frequency response to beyond 20,000 Hz. A closed-loop dual capstan system employs a servo-controlled d.c. motor to maintain rock-steady, constant speed and a second motor takes over in fast forward and rewind. IC logic and feather-touch solenoids control all tape functions. A built-in record head azimuth-alignment beacon insures perfect recordings every time.

But enough. An extended technical description goes far beyond the scope of this ad.

Far more persuasive, we think, are these comments from a Hirsch-Houck Laboratories Test Report that appeared in the December 1973 issue of *Stereo Review*.

"As our test data indicate, the Nakamichi 700 is an extraordinary cassette recorder... With Nakamichi CrO₂ tape, the performance was... an almost incredible ± 1.5 dB from 46 to 22,500 Hz... The noise level, referred to the 3 per cent distortion level, was very low... -57 dB without Dolby and -62.5 dB with Dolby."

They go on to say, "We could not measure the 700's combined wow and flutter because it was below the residual level of our test tape."

Summing up, the Report declares, "...we would rank it (the Nakamichi 700) as the best cassette recorder we've tested and one of the best tape recorders of any type we have ever used."

See and hear the Nakamichi 700 and the companion Model 1000 at your dealer now. Then go out and start your own little revolution.

For complete information and the name of your nearest dealer write: Nakamichi Research (U.S.A.), Inc., 220 Westbury Avenue, Carle Place, N.Y. 11514. In California: 1101 Colorado Avenue, Santa Monica 90404.



PERFECTION THROUGH PRECISION.

NAKAMICHI

Check No. 40 on Reader Service Card

Cassette & Cartridge Tape Decks

MANUFACTURER	MODEL	If cassette, "X" if cartridge state	Channels, 1, 2, or 4	Freq. Response, Hz-KHz \pm 2 dB (standard tape)	Freq. response, Hz-KHz \pm 2 dB	Wow and flutter, % (C/O, tape)	S/N ratio, dB w/o RMS	S/N ratio, dB with Dolby	C/O, bias & equal?	LN bias & equal?	Mic. mixing? no. inputs	Memory rewind?	Does unit record?	VU meters? (number?)	Peak level indicator (s)?	Dimensions, in.	Weight lbs. (net)	Price, \$	NOTES (D) after price indicates Dolbyized. (Q) with model number indicates 4-channel.
KENWOOD	KT-910	X	2	30-13	30-16	0.09	50	58	—	—	yes	yes	yes	2	yes	16"x10 x5		299.95(D)	
	KT-710	X	2	30-13	30-16	0.09	50	58	—	—	—	yes	yes	2	yes	16"x10 x5		249.95(D)	
	KT-620	X	2	40-11	40-12	0.09	50	58	yes	—	—	—	yes	2		17"x11 x5½		219.95(D)	
LAFAYETTE	RK-D750	X	2	50-11 \pm 5	50-13 \pm 5	0.25	45	55	yes	no	no,2	no	yes	2	no	13x9x4½	8	159.95(D)	Headphone amp.
	RK-725	X	2	50-11 \pm 5	50-13 \pm 5	0.25	45	—	yes	no	no,2	no	yes	2	no	13x9x3½	6	109.95	Headphone amp.
	RK-715	X	2	60-10 \pm 5	—	0.4	40	—	no	no	no	no	yes	no	yes	8½x5½x3	3½	69.95	Output level control; automatic stop.
	RK-D985	8	4	50-11 \pm 5	—	0.25	45	55	no	no	no,2	no	yes	2	no	13x8½x5	10½	199.95(D)	Auto stop.
	RK-990	8	4	30-12 \pm 5	—	0.25	45	—	no	no	yes,2	no	yes	2	no	12x9x3½	13	179.95	Auto-stop; manual eject; fast forward.
	RK-885	8	4	50-10 \pm 5	—	0.25	40	—	no	no	no,2	no	yes	2	no	13x8½x5	9	119.95	Auto-stop; fast forward.
3M	CTR-1	X	2	35-15	35-17	0.07	50	60	yes	yes,2	yes	yes	yes	2	2	23½x8 x7½	23	629.95(D)	3 pos. bias & equal. switch, rms & peak meters.
	CTR-3	8	2	30-12	30-15*	0.1	50	60		yes	no		yes	2	no	22½x7½ x6	18½	399.95(D)	*W. Scotch Classic. 2 pos. bias & EQ; fast forward 5X normal speed.
MARANTZ	5420	X	2	30-18 \pm 3*	30-16 \pm 3	.07	52	60	yes	yes	4	yes	yes	2	yes	17½x12½ x6½		399.95(D)	*W. FeCr tape.
	5400	X	2	30-18 \pm 3*	30-16 \pm 3	.07	52		yes	yes	4	yes	yes	2	yes	17½x12½ x6½		349.95	*W. FeCr tape.
	5220	X	2	30-17 \pm 3*	35-15 \pm 3	.08	50	58	yes	yes	2	yes	yes	2	yes	17x5 x11½		399.95(D)	*W. FeCr tape.
	5200	X	2	35-17 \pm 3*	35-15 \pm 3	.08	50		yes	yes	2	yes	yes	2	yes	17x5 x11½		299.95	*W. FeCr tape.
	5210	X	2	35-17 \pm 3*	35-15 \pm 3	.09	50	58	yes	yes	2	no	yes	2	yes	16x10 x5½		299.95(D)	*W. FeCr tape.
MERITON	HD-540	X	2	30-13	30-16	0.1	50	58	yes	yes	no		yes	2	no	16x4 x10½	11½	259.95(D)	W. headphone jack, dustcover, Dolby.
	HD-500	X	2	30-12	30-15	0.2	45		yes	no	no	no	yes	2	no	14x3½ x9½	8	129.95	W. headphone jack.
	HD-830	8	2	40-13		0.15	45		no	no	no,2	no	yes	2	no	14½x5½ x9½	8	139.95	Pause control; auto off.
	HD-800	8	2	30-12		0.17	50		no	no	no	no	no			10½x5½ x8½		49.95	W. pgm. indicator lights.
NAKAMICHI	1000	X	2	35-18 \pm 3	35-20 \pm 3	0.1*	52	60	yes	yes	yes,3	yes	yes	2	no	20½x8½ x11½	39	1295.00(D)	3-head, DNL, double capstan, IC logic control. *DIN.
	700	X	2	35-18 \pm 3	35-20 \pm 3	0.1*	52	60	yes	yes	yes,3	yes	yes	2	no	20½x5 x10½	28	849.00(D)	*As above.
	550	X	2	40-17 \pm 3	40-16 \pm 3	0.13	52	60	yes	yes	yes,3	no	yes	2	no	12½x13½ x3½	11½	499.00(D)	Focused-gap head, a.c./bat. power. Nicad bat. opt. 45 dB peak mtrs. *As above.
	500	X	2	40-17 \pm 3	40-16 \pm 3	0.13*	50	58	yes	yes	yes,3	yes	yes	2	no	15x10 x4½	15½	399.00(D)	*As above. 3-pos. bias sel.
NEAL (AUDIO-PHILE SYSTEMS)	103	X	2	35-12 \pm 3	35-12 \pm 3	0.09	55	64	yes	yes	yes,3	no	yes	*	*	13½x5½ x9½	14	598.50(D)	*2 peak-read. meters. Adj. bias; solid-state switching.
	102 MKII	X	2	35-12 \pm 3	35-15 \pm 3	0.09	55	64	yes	yes	no	no	yes	*	*	14x9½ x5	14	549.50(D)	*As above. Adj. bias; solid-state switching.
PIONEER	CT-F9191	X	2	35-13 \pm 3	30-14 \pm 3	0.07	52	62	yes	yes	yes,2	yes	yes	2	yes	17½x8 x12½	27½	449.95(D)	Front load; limiter; peak LED indicators; memory Stop/Play; mike/line mixing.
	CT-F7171	X	2	40-13 \pm 3	40-13 \pm 3	0.1	48	58	yes	yes	no,2	yes	yes	2	yes	17x12 x5½	18½	369.95(D)	Front load; peak limiting; skip cueing; in & out level controls.
	CT-F6161	X	2	40-11 \pm 3	40-12 \pm 3	0.12	48	58	yes	yes	no,2	no	yes	2	no	17½x5½ x13	19½	299.95(D)	Front load; bias & eq. select; skip cueing; in & out level controls.
	CT-F2121	X	2	40-11 \pm 3	40-12 \pm 3	0.12	48	58	yes	yes	no,2	no	yes	2	no	13½x11 x5½	14½	199.95(D)	Front load; bias & eq. select; optional cabinet.
	CT-5151	X	2	63-12 \pm 3	63-13 \pm 3	0.12	48	58	yes	yes	no,2	yes	yes	2	yes	15½x9½ x3½	10½	269.95(D)	Peak limiting; peak LED indicators; skip cueing; memory rewind.
	CT-4141A	X	2	63-10 \pm 3	63-12 \pm 3	0.13	48	58	yes	yes	no,2	no	yes	2	no	15½x9½ x3½	10½	239.95(D)	Auto stop; skip cueing.
	CT-3131A	X	2	63-10 \pm 3	63-12 \pm 3	0.13	47	—	yes	no	no,2	no	yes	2	no	15½x9½ x3½	9½	179.95	Noise filter; ref. level markers; pause.
QUADRA-FLEX	307	X	2	20-14 \pm 3	20-15 \pm 3	.08	52	59	yes	yes	no,4	yes	yes	2	yes	15½x6 x12½	22	369.95	Solenoid assist controls; FeCr bias position.
RADIO SHACK	SCT-9	X	2	30-14 \pm 3	30-15 \pm 3	.15	50	54	yes	yes	yes,2	yes	yes	2	no	14½x9½ x4½	11	199.95(D)	
	SCT-8	X	2	40-12 \pm 3	40-13 \pm 3	.15	48		yes	yes	yes,2	no	yes	2	no	15x8½ x4	6½	139.95	
	TR-801	8	2	50-12 \pm 3	—	.15	50				yes,2		yes	2	no	16½x10½ x5½	12½	149.95	Auto stop after 4th track; auto eject.
	TR-882	8	2	50-10 \pm 3	—	0.2	42				yes,2		yes	2	no	13½x8½ x4	8½	99.95	

Cassette & Cartridge Tape Decks

MANUFACTURER	MODEL	If cassette "X" or "X" if cartridge state no. tracks	Channels, 1, 2, or 4	Freq. Response, Hz-kHz \pm 2 dB (standard tape)	Freq. response, Hz-kHz \pm 2 dB (CrO ₂ tape)	Wow and flutter, % (W RMS)	S/N ratio, dB, w/o Dolby	S/N ratio, dB, with Dolby	CrO ₂ bias & equal?	LN bias & equal?	Mic. mixing? no. inputs	Memory rewind?	Does unit record?	VU meters? (number?)	Peak level indicator (b)?	Dimensions, in.	Weight lbs. (net)	Price, \$	NOTES (D) after price indicates Dolbyized. (Q) with model number indicates 4-channel.
SANSUI	SC-636	X	2	35-10 \pm 3	35-13 \pm 3	0.12	50	58	yes	yes	yes,3	no	yes	2	no	16x11% x4% 17x11% x6%	14.8	279.95(D)	M-C ferrite head; auto off.
	SC-3000	X	2	35-11 \pm 3	35-13 \pm 3	0.09	50	60	yes	yes	no,2	yes	yes	2	yes		17.6		Front load; d.c. servo motor; auto off.
SHARP	RT-3500	X	2	45-13 \pm 3	45-15 \pm 3	0.13	52	58	yes	no	yes,2	yes	yes	2	yes	12x10% x4% 17x10% x4%	13	259.95(D)	Automatic Program Search System; cassette chamber illum.; sleep switch. Cassette chamber illum.
	RT-2500	X	2	45-12 \pm 3	45-12 \pm 3	0.13	52	58	yes	no	yes,2		yes	2	yes	15x9% x4% 16x10% x10%	13	199.95(D)	APSS; time counter; pause.
	RT-821	8	2	50-10 \pm 3	—	0.25	45	—	no	no	yes,2		yes	2	no	15x9% x4%	12	169.95	APSS; cassette chamber illum.
	RT-2000	X	2	60-8 \pm 3	60-10 \pm 3	0.15	50	55	yes	no	yes,2		yes	2	yes	15x9% x4%	12	179.95(D)	Counter; pause.
	RT-840 (2)	8	4	50-10 \pm 3	—	0.25	45	—	no	no	yes,2		yes	2	no	15x9% x4%	12	199.95	As above.
	RT-820	8	2	50-10 \pm 3	—	0.25	45	—	no	no	yes,2		yes	2	no	15x9% x4%	12	149.95	As above.
	RT-480	X	2	45-11 \pm 3	45-15 \pm 3	0.15	52	58	yes	yes	yes,2	yes	yes	2	no	7x10% x4%	13	249.95(D)	APSS.
SUPER-SCOPE	CD-302A	X	2	30-15	30-18	0.12	48	58	yes	no	yes,2	no	yes	2	yes	13x9x3	6	189.95(D)	Pause.
	CD-301A	X	2	40-10	40-14	0.2	48	—	yes	no	yes,2	no	yes	2	yes	13x9x3	6	139.95	Pause.
	TD-48	X	2/4	30-10	—	0.2	48	—	no	no	no	no	no	—	no	7x10x5	6%	99.95	Auto 2/4 channel switching; continuous play; fast forward.
	TD-28	X	2	30-10	—	0.2	48	—	no	no	no	no	no	—	no	7x10x5	6%	74.95	Program repeat.
TANBERG	TCD-310	X	2	40-13.5 \pm 2	—	0.15	—	63	yes	yes	—	yes	2	—	—	17x9x4	14%	499.00	
TEAC	A-170	X	2	30-13k	30-16k	0.09	60	—	yes	yes	no	no	yes	2	no	17x10x6	10	239.50(D)	
	A-400	X	2	30-13k	30-16k	0.08	60	—	yes	yes	no	no	yes	2	yes	18x11x6	14	329.50(D)	
	A-360S	X	2	30-15k	30-16k	0.07	60	—	yes	yes	yes	yes	yes	2	yes	18x11x5	17	389.50(D)	
	A-450	X	2	30-15k	30-16k	0.07	60	—	yes	yes	yes,2	yes	yes	2	yes	16x11x7	21	479.50(D)	
TECHNICS BY PANASONIC	RS-676US	X	2	40-12 \pm 2,3	40-13 \pm 2,3	.08	50	58	yes	yes	yes,2	yes	yes	2	pk. mtrs.	16x4% x5%	23	459.95(D)	Dolby incl. 25 μ S de-emphasis select; two-motors; auto CrO ₂ select. Meter peak test. Remote option; front load; memory replay. Meter peak test; tape-run light.
	RS-625US	X	2	40-12 \pm 3,5	40-13 \pm 3	0.1	49	57	yes	yes	yes,2	yes	yes	2	pk. mtrs.	15x11 x5	13%	299.95(D)	Auto stop.
	RS-610US	X	2	50-10 \pm 3	50-12 \pm 3	.15	49	57	yes	yes	yes,2		yes	2	no	13x11% x4%	13%	249.95(D)	Meter peak test; auto stop.
	RS-263AUS	X	2	30-13	30-14	.15	49	57	yes	yes	yes,2	yes	yes	2	pk. mtrs.	13x9% x4%	10%	199.95(D)	*Stereo record, 4-ch. play. Noise suppr.; auto eject. Locking fast forward, pause; digital time readout.
	RS-858US 4-chan.	8	*	30-12	—	.15	45	—	no	yes	yes,4	yes	yes	4	no	21x11% x4%	20%	329.95	
TOSHIBA	PC-6030	X	2	20-15	20-17.5	0.07	60	70	yes	—	yes	yes	yes	2	no	15x7% x3%	22	749.00(D)	PLL-controlled d.c. servo motor; IC logic control.
	PT-490	X	2	30-15	—	0.1	50	60	yes	yes	no	no	yes	2	no	16x11% x5%	18	349.95(D)	Auto reverse off.
	PT-470	X	2	30-15	—	0.1	50	60	yes	yes	no	no	yes	2	no	16x11% x5%	18	249.95(D)	Auto off; cue; reverse.
	PT-415	X	2	—	30-15	0.1	50	—	yes	no	no	no	yes	2	no	14x10% x4	10	199.95	Auto, DNL.
	PT-406	X	2	30-15	50-10	0.15	45	—	yes	no	no	no	yes	2	no	13x9% x4%	9	159.95	Auto off.
	PE-1150	8	2	100-10	—	0.3	40	—	no	no	no	no	yes	2	no	15x10% x4%	11	149.95	
UHER	CG-360	X	—	25-15 \pm 3	20-20 \pm 3	0.15	53	56	yes*	yes	yes,2	yes	yes	2	no	15x4 x11%	15%	1088.50(D)	*Auto CrO ₂ swit. 3 motors; pgm. replay.
	CR-210	X	—	—	20-16 \pm 3	0.12	—	58	yes*	yes	no,2	no	yes	2	no	7x7x2	4%	757.25(D)	*Auto CrO ₂ swit. Auto reverse.
	CR-134	X	—	—	20-15 \pm 2	0.12	—	56	no	no	—	—	—	—	—	—	—	378.00	
WOLL-ENSAK	4766	X	2	35-14 \pm 3	35-15 \pm 3	0.07	48	60	yes	yes	yes,2	no	yes	2	—	17x10% x6%	16	429.95(D)	3-pos. bias & EQ. FeCrO ₂ S/N above 50 dB.
	8080(Q)	8	2/4	30-12 \pm 3	30-15* \pm 3	0.1	50	60	—	yes	—	—	yes	2	no	19x10% x5	17	399.95(D)	*W. Scotch Classic. 2-chan. REC., 4-chan.
	8075	8	2	30-12 \pm 3	30-15 \pm 3	0.1	50	60	—	yes	—	—	yes	2	no	19x10% x5	17	339.95(D)	*W. Scotch Classic. 2-pos. EQ.
	8056	8	2	30-12 \pm 3	30-15 \pm 3	0.1	50	—	—	yes	—	—	yes	2	no	17x10% x5	15	269.95	2-pos. EQ.
YAMAHA	TC-800GL	X	2	30-13	30-15	0.06	50	58	yes	yes	yes,2	yes	yes	2	yes	12x12% x3%	11.4	390.00(D)	3-way powr; bias & EQ swit.; auto CrO ₂ ; variable pitch; limiter.
	TB700	X	2	30-13	30-16	0.15	48	58	yes	yes	yes,2	no	yes	2	no	15x9% x4%	11.0	340.00(D)	3-pos. bias & EQ; auto off; peak limiter; pitch control.

Speakers

MANUFACTURER	MODEL	Enclosure type	Woofer dia., in.	Woofer resonance (in system)	Midrange dia., in.	Midrange type	Tweeter dia., in.	Tweeter type	Level controls	Anechoic freq. response	Sens. for 1 W, 1 mtr. 10 kHz	Power-handling capability	Crossover frequencies, Hz	Impedance, nominal	Dimensions, inches	Wood finish	Grille material, color	Weight, lbs.	Price, \$	NOTES
ACOUSTICAL ENGINEERING	Saratoga	horn	12		8	horn	1½	horn	T	36-18* +5	96.5	125	500, 3k	8	28x30 x22	Wal.	Cloth, bn.	150	895.00	*Meas. in studio w. 3 mS reverb.
	Mini-Corner	horn	8		4	horn	1	horn	T	42-18 ±5	88.5	80	800, 5k	8	12x24 x12	Wal.	Cloth, bn.	85	295.00	*As above.
ACOUSTIC RESEARCH	AR-LST	Ac.sus.	12	42	(4) 1½	dome	(4) ¾	dome	*	**	86	**	575, 5k	8/4	27x20 x9¾	Wal.	Beige, line.	90	600.00	*6-position spectral balance switch **Complete data on request.
	AR-3A	Ac.sus.	12	42	1½	dome	¾	dome	M, T	*	86	*	575, 5k	4/3	25x14 x11½	Wal.	Beige, line.	53	295.00	*Complete data on request.
	AR-5	Ac.sus.	10	56	1½	dome	¾	dome	M, T	*	86	*	650, 5k	8/4	13½x24 x11½	Wal.	Beige, line.	39	215.00	*Complete data on request.
	AR-2AX	Ac.sus.	10	56	3½	cone	¾	dome	M, T	*	86	*	1400, 5k	8/4	13½x24 x11½	Wal.	Beige, line.	36½	165.00	*Complete data on request.
	AR-6	Ac.sus.	8	56	—	—	1¼	dome/ cone	T	*	86	*	1800	8/4	12x19½ x7	Wal.	Beige, line.	20	99.00	*Complete data on request.
	AR-7	Ac.sus.	8	68			1¼	dome/ cone	** T	*	86	*	2000	8/4	9¾x15½ x6¾	Wal.	Beige, line.	11	75.00	*3-pos. switch **Complete data on request.
ADS	2001	Ac.sus.	4		2	dome	1	dome		50-25*			1500	43k **	7x4¼ x4	Met.	Alum.	19	475.00	*DIN. **Bi-amped, 12-V system; electronics 3½x6½x9¼ in.
	LV1020	Ac.sus.	12		2	dome	1	dome		20-25*	110*		400, 3k	50k **	15x29 x11½	Wal.	Cloth, blk.	62	665.00	*DIN. **At full power, X-over, 3 amps built in.
	L810	Ac.sus.	(2) 8		2	dome	1	dome		20-25*	95		550, 4k	4	14x25½ x11½	Wal.	Cloth, blk.	55	329.50	*DIN. 2-chamber cabinet
	L710	Ac.sus.	(2) 7				1	dome		25-25*	94		550, 4k	4	12½x2½ x10½	Wal.	Cloth, blk.	40	245.00	
	L700	Ac.sus.	(2) 7				1	dome		25-25*	94		1500	4	12½x21½ x10½	Wal.	Cloth, blk.	35	169.95	*DIN. As above.
	L500	Ac.sus.	8				1	dome		25-25*	94		1500	4	11½x20 x9¾	Wal.	Cloth, blk.	26	129.95	*DIN.
	L400	Ac.sus.	7				1	dome		30-25*	92		1500	4	10x17½ x8½	Wal.	Cloth, blk.	16	96.00	*DIN.
ADVANCED DEVELOPMENT DIV., AR, INC.	AR-10 π	Ac.sus.	12	42	1½	dome	¾	dome	*	**	86	**	525, 5k	*	14x25 x10½	Wal.	Foam, blk.	59½	395.00	*Three 3-pos. switches for woofer, mid, tweeter **Complete data on request.
	AR-11	Ac.sus.	12	42	1½	dome	¾	dome	M, T	*	86	*	525, 5k	4/3	14x25 10½	Wal.	Foam, blk.	55	295.00	*Complete data on request.
	AR-MST/1	Ac.sus.	8	55		3 1¼		dome, cone	T	*	86	*	1600, 5k	8/6	14½x21 x7¾	Wal.	Foam, blk.	25	159.00	*Complete data on request.
ADVENT	Advent	Ac.sus.		43		—	7/8	dome	T	30-20 +4		*	1000	8	14½x25½ x11½	Wal.	Cloth, beige	44	137.00	*Data on request; also in walnut vinyl, \$119.00.
	Smaller Advent	Ac.sus.		43		—	7/8	dome	—	30-20 +4		*	1400	4	11½x20 x9¾	Wal.	Cloth, beige	26	92.00	*Data on request
	Advent/2	Ac.sus.		58		—	(2) 1¼	cone	—	40-20k		*	1500	8	11½x19 x7¾	White	Metal	18	77.00	*Data on request
AKAI	S-123	port	12	25	4%	cone	1½	cone	M, T	35-20 ±5	88	50	1500, 4k		14½x26½ x10½	*	Foam, brn.	40	189.95	*Wood-grain vinyl finish
	S-122	port	12	25			1½	cone	T	40-20 ±5	86	40	2000		14½x26½ x10½	*	Foam, brn.	34	122.95	*As above.
	S-102	port	10	25			1½	cone	T	45-20 ±5	85	35	2000		13x24 x9¾	*	Foam, brn.	27	89.95	*As above.
	S-82	ac.sus.	8				3	cone	—	60-17 ±5	80	15	4000		11x19x 6¾	*	Cloth	9½	75.00 pair	*As above.
ALLISON ACOUSTICS	One	ac.sus.	(2) 10	45	(2) 3½	cone	(2) 1	cone	M, T	—	86	25	350, 3,750	8/7	19x40x 10½	Wal.	Plas., blk.	67	360.00	
	Two	ac.sus.	(2) 8	52	(2) 3½	cone	(2) 1	cone	M, T comb.	—	86	25	350, 3,750	8/7	16x36x 9¾	Wal.	Plas., blk.	57	295.00	
ALTEC	Stonehenge III	port	15				*	**	T	50-20	100	65	1.5K	8		Oak	Foam, brn.	114	595.00	*1½ in. voice coil **compression driver.
	Stonehenge II	port	12		5%	cone	5	cone	MT	35-20	86	50	500, 5K	8		Oak	Cloth, brn.	61	359.00	
	Nine	port	12		6%	cone	5	cone	MT	40-20	93	60	800, 7K	8		Oak	Foam, var.	56	289.00	
	Seven	port	12		6%	cone	4	cone	MT	45-20	90	50	850, 8K	8		Wal.	Foam, var.	43½	219.00	
	Five	port	12			(2) 4		cone	T	45-20	91.5	45	1500	8		Wal.	Cloth, blk.	32	169.00	
	Three	port	10			4		cone	T	50-20	90.5	35	1500	8		Oak	Cloth, blk.	26¼	119.00	
	One	ac.sus.	8			4		cone	T	50-20	84	30	3000	8		Oak	Cloth, brn.	23	89.00	

Speakers

MANUFACTURER			SPECIFICATIONS																	NOTES
			MODEL	Enclosure type	Woofer dia., in.	Woofer resonance (in system)	Midrange dia., in.	Midrange type	Tweeter dia., in.	Tweeter type	Level control(s) M-Mid, T-tweeter	Anisochron freq. response, Hz-kHz, \pm ? dB	Sens. for 1 W input, dB SPL, 1 mtr. on-axis, 100 Hz-10 kHz	Power handling capability continuous watts	Crossover frequencies, Hz	Impedance, nominal	Dimensions, inches	Wood finish	Grille material, color	
AUDIOANALYST	A-76X	ac.sus.	10	52	—	—	2	cone	T	44-18 \pm 3	90	40	1800	8	12 $\frac{1}{2}$ x21x10 $\frac{1}{2}$	Wal	Cloth, blk.	32	107.00	
	A-100X	ac.sus.	10	48	2	cone	1 $\frac{1}{2}$	cone	M,T	40-20 \pm 3	92	50	1500/7500	8	13 $\frac{1}{2}$ x24 $\frac{3}{4}$ x12	Wal	Cloth, blk.	37	147.00	
	A-200X	ac.sus.	12	46	5	cone	2 (2)1 $\frac{1}{2}$	cone cone	M,T	38-20 \pm 3	93	100	800/2000/7500	8	15x27x12 $\frac{1}{2}$	Wal	Cloth, blk.	53	259.00	
AUDIO LABS	82	ac.sus.	8	44			1	dome		35-20 \pm 5	94	35	2000	8	12x19 $\frac{1}{2}$ x8	Wal	Foam, blk.	23	79.00	
	101D	ac.sus.	10	48			1	dome	T	25-20 \pm 5	91	100	2000	8	14 $\frac{1}{2}$ x25 $\frac{1}{2}$ x11 $\frac{1}{2}$	Wal	Foam or cloth	46	139.00	
	1221	ac.sus.	12	43	2	dome	1	dome	M,T	22-20 \pm 4	92	150	500/5000	8	14 $\frac{1}{2}$ x25 $\frac{1}{2}$ x12	Wal	Foam or cloth	50	279.00	
	1251	ac.sus.	12	43	5	cone	1	dome		22-20 \pm 4	94	150	500/5000	8	14 $\frac{1}{2}$ x25 $\frac{1}{2}$ x12	Wal	Foam or cloth	49	189.00	
	81	ac.sus.	8	46			1	dome		25-20 \pm 4	92	50	1600	8	12x22x9	Wal	Foam blk.	26	99.00	
	121	ac.sus.	12	43			1	dome		22-20 \pm 4	92	100	1600	8	14 $\frac{1}{2}$ x25 $\frac{1}{2}$ x12	Wal	Foam, cloth	39	159.00	
	Column	port	10	49	(2)3	dome	(3)1	dome		20-22 \pm 4	90	200	500/4500	8	12x43x12	Wal	Knit	70	349.00	
AUDIONICS	M-32	port	8	48			2	cone		38-17 \pm 4	85	25	2500	8	21x12x9	Wal	Cloth, blk.	30	150.00	
	M-33	port	9x13	42	5	cone	7/8	dome		35-30 \pm 6	88	50	250, 3k	8	30x16x14	Wal	Cloth, blk.	90	350.00	
	TL30-B	port	8	44			2	cone	T	40-16 \pm 4	85	35	2500	8	40x4x11	Rose	Cloth, blk.	65	199.00	
	TL-51	port	8	42			2	cone	T	36-16 \pm 4	88	50	2500	8	44x12 $\frac{1}{2}$ x12 $\frac{1}{2}$	Rose	Cloth, blk.	75	275.00	
	TLM-200	port	9x13	38	5	cone	7/8	dome		32-30 \pm 6	88	50	250, 3k	8	48x14 $\frac{1}{2}$ x14 $\frac{1}{2}$	Wal.	Cloth, blk.	120	550.00	
AUDIO RESEARCH	TYMPANI I-C	see notes	*	*	*	*	*	*		40-18 \pm 3	84	50	1325	8	see notes	none	see notes	67	1155.00 pair	*Magneplanar tympanic suspension in folding floor-stand screen in choice of off-white or blk.
	TYMPANI IIIA-TM	see notes	*							75-18 \pm 3	87	50	**	8	see notes	none	see notes	43 $\frac{1}{2}$	900.00 pair	*As above; **Bi-amp required; rex. x-over 75-100 Hz;
	TYMPANI IV-TM	see notes	*							60-18 \pm 3	87	50	**	16	see notes	none	see notes	67	1175.00 pair	*As above. **Tri-amp required.
	TYMPANI WA	see notes	*							35-3 \pm 3	86	50	**	8	see notes	none	see notes	87	845.00	*As above. **Bi-amp required; rec. x-over 65-100 Hz.
AUDIOSON/KIRKSAETER	Monitor 100	ac.sus.	(2)10	(2)1 $\frac{1}{2}$	dome	(2)1	dome			18-22	100	1200/5500	8	15 $\frac{1}{2}$ x29 $\frac{1}{2}$ x12	Wal.	Cloth brn.	66	450.00		
	Monitor 70	ac.sus.	12	1 $\frac{1}{2}$	dome	1	dome			20-22	70	1200/5500	4	22 $\frac{1}{2}$ x13x11	Wal.	Cloth brn.	40	300.00		
	Monitor 50	ac.sus.	10	1 $\frac{1}{2}$	dome	1	dome			22-22	50	1200/5500	4	18x9 $\frac{1}{2}$ x11 $\frac{1}{2}$	Wal.	Cloth brn.	22	210.00		
	Monitor 40	ac.sus.	8	1 $\frac{1}{2}$	dome	1	dome			28-22	40	1200/5500	4	18x9 $\frac{1}{2}$ x8	Wal.	Cloth brn.	18	165.00		
	Monitor 45	ac.sus.	10			1	dome			28-20	45	3500	4	18x9 $\frac{1}{2}$ x11 $\frac{1}{2}$	Wal.	Cloth brn.	16	150.00		
	Monitor 35	ac.sus.	8			1	dome			30-20	35	3500	4	18x9 $\frac{1}{2}$ x8	Wal.	Cloth, brn.	14	130.00		
AUDIOTEX (GC)	Audiotrek I	ac.sus.	6	55			3	cone		50-20	20		8	17x10x6		Foam, brn.	11 $\frac{1}{2}$	39.95	Optional base in black, \$4.95.	
	Audiotrek II	ac.sus.	8				1 $\frac{1}{2}$	cone		35-22	25		8	18 $\frac{1}{2}$ x11 $\frac{1}{2}$ x17 $\frac{1}{2}$		Foam, brn.	14	49.95	As above.	
	Audiotrek III	ac.sus.	10				2 $\frac{1}{2}$	cone		40-22	35		8	20x12x10		Foam, brn.	20	69.95	As above.	
	Audiotrek IV	ac.sus.	12		4 $\frac{1}{2}$	cone	1 $\frac{1}{2}$	cone		35-22	45		8	24x15x10		Foam, brn.	29	89.95	As above.	
AURATONE	5S	ac.sus.	4 $\frac{1}{2}$				—	—	—	90-15	90	20	—	8	6 $\frac{1}{2}$ x10 $\frac{1}{2}$ x4 $\frac{1}{2}$	Wal.	Foam, blk.	4 $\frac{1}{2}$	50.00 pair	
	5C	ac.sus.	4 $\frac{1}{2}$				—	—	—	90-15	90	20	—	8	6 $\frac{1}{2}$ x6 $\frac{1}{2}$ x5 $\frac{1}{2}$	Wal.	Foam, blk.	4	50.00 pair	
	5X	ac.sus.	4 $\frac{1}{2}$				—	—	—	90-15	90	20	—	8	7 $\frac{1}{2}$ x7 $\frac{1}{2}$ x4 $\frac{1}{2}$	Wal.	Foam, blk.	4	50.00 pair	
	5W	ac.sus.	4 $\frac{1}{2}$				—	—	—	90-15	90	20	—	8	7 $\frac{1}{2}$ x7 $\frac{1}{2}$ x5 $\frac{1}{2}$ -3 $\frac{1}{2}$	Wal.	Foam, blk.	4 $\frac{1}{2}$	54.00 pair	

Speakers

MANUFACTURER	MODEL	ENCLOSURE TYPE																		NOTES
		Woofer dia., in.	Woofer resonance (in system)	Midrange dia., in.	Midrange type	Tweeter dia., in.	Tweeter type	Level control(s)	Anechoic freq. response	Sens. for 1 W input, dB SPL, 1 mtr. on-axis, 100 Hz-10 kHz	Power-handling capability continuous watts	Crossover frequencies, Hz.	Impedance, nominal	Dimensions, inches	Wood finish	Grille material, color	Weight, lbs.	Price, \$		
AVID	60	Port	9x6			2½	cone	—	60-17 ±5	90	35*	1600, 5k	8½x9½x25½	Wal.	Cloth, brn.	16	125.00 pair	*Prog. material. Opt. stands, \$10/pair.		
	100	ac.sus.	8	59	—	1½	Cone	T	40-18 ±5	86	75*	2.5k	13x8½x24½	Wal.	Cloth, brn.	22	88.00	*As above. Fused.		
	102	ac.sus.	10	47	—	1	dome	T	35-18 ±5	85	100*	2.2k	15x9½x25	Wal.	Cloth, brn.	36	130.00	*As above. Stands inc.		
	103	ac.sus.	10	47	4½	cone	1	dome	35-18 ±5	83	150*	500, 3.5k	15x9½x25	Wal.	Cloth, brn.	38	165.00	*As above. Opt. stands, \$10/pair.		
	105	ac.sus.	12	35	3	cone	1 (2) 1½	dome cone	30-18 ±2½	84	200*	500, 4k, 9k	20x15x26½	Wal.	Cloth, brn.	75	300.00	*As above.		
	101	port	8		—	—	2 (2) 1½	Cone	—	30-20 ±3	86	50*	2.5k, 3.5k	13½x29x13½	Wal.	Cloth, brn.	40	130.00	*As above.	
BANG & OLUFSEN	Beovox M70	ac.sus.	10*		2½	cone	1	dome	27-20 ±4.8	70	500, 4K	4/8	13x25½x4½	**	Cloth, blk.	55	350.00	*Plus 5-in. passive radiator. **Rosewood, oak, or teak. W. stands.		
	Beovox S60	ac.sus.	10*		2	cone	1	dome	36-20 ±4.8	60	700, 4k	4/8	12½x23½x7½	**	Cloth, blk.	24	220.00	* **As above. Shelf mount recommended.		
	Beovox P45	ac.sus.	(2)* 5			1	dome		40-20 ±4.8	45	2000	4/8	13x25x5	**	Cloth, blk.	17	155.00	*Plus 3½ in. passive radiator. **As above. Wall mount recommended.		
	Beovox S45	ac.sus.	8*						38-20	45	2000	4/8	10¼x19x7	**	Cloth, blk.	15	140.00	* **As above. Shelf mount recommended.		
	Beovox P30	ac.sus.	6½*						49-20	30	3000	4/8	11x21¼x3	**	Cloth, blk.	11	115.00	* **As above. Wall mount recommended.		
	Beovox S30	ac.sus.	5½*						49-20	30	3000	4/8	8¾x16x5	**	Cloth, blk.	8	100.00	* **As above. Shelf mount recommended.		
BERTAGNI	D120	*	*		*	*	Pz	M,T	35-20 ±2	92	100	700, 3k	4	53x20x3x3%	Oak	Foam, blk.		399.00	*Foam-based electro-magnetic diaphragm, no enclosure. Size less base.	
	D60	*	*		*	*	Pz	M,T	38-20 ±2	91	50	700, 3k	8	(3)29x20x3x3%	Wal.	Foam, blk.		199.00	*As above.	
	U60	*	*		*	*			38-18 ±3	91	40	900	8	(3)26½17x3x3%	Util.	Foam, blk.		149.00	*As above.	
	D50	*	*		*	*	Pz	T	45-20 ±4	89	25	3k	8	(3)26x16x3%	Wal.	Foam, blk.		99.00	*As above.	
BEVERIDGE	2	*	*	*	*	*	*	*	40-15 ±2	na	na	na	na	24x72x16	Wal.	Foam,	80	4,000.00 pair	*Full range electro-static, cylindrical radiation, slot/lens, air-mass loaded. Includes amplifier.	
B-I-C	F6	duct port	12		(2) 5	cone	(2) 2	pz		97	125		6/4	26¼x15¼x14¾	Wal.	Foam, var.	52	295.00		
	F4	duct port	10			cone	2	dome		94	100		6/4	25x13x13	Wal.	Foam, var.	35	159.00		
	F2	duct port	8			cone	2	dome		92.5	75		6/4	19¾x12x11½	Wal.	Foam, var.	23	119.50		
	F1	duct port	8			cone	2	dome		91	50	2000	8/6	16½x107/8x10	Wal.	Foam, var.	17	74.95		
BML	Tracer I	port	8	43			Pz		43-22 ±3	97	150	2k*	4	22x12x10	Wal.	Cloth, brn., blk.	30	112.00	*Mech. x-over; fused.	
	Tracer II	port	8	32			Pz		28-22 ±3	94	175	1k, 2k*	4	25x14x9	Wal.	Cloth, brn, blk.	35	149.95	*Mech. x-over; fused.	
	Tracer III	port	8	28	4	cone	Pz		22-22 ±3	94	200	1k, 2k, 4k*	4	29x14x12	Wal.	Cloth, blk.	45	299.95	*Mech. x-over; fused.	
BOSE	901	ac.sus.*			(9) 4½	cone				270		8/ 7.5	21x13x13	Wal.	Cloth, brn.	33	598.00 pair	*Direct/reflecting; no x-over. Includes active equalizer.		
	501	ac.sus.*	10	50		(2) 3½	cone			100	1500	4/ 3.7	14x24x14	Wal.	Cloth, brn.	42	168.00	*Direct/reflecting.		
	301	port	8					T		60	1200, 3k	8/ 6.5	17x10½x9%	Wal.	Cloth, brn. Foam, blk.	18	96.00			
BOZAK	B310/410	ac.sus.	(4) 12		(2) 6½	cone	(8) 1½	Cone	28-20	150*	400, 2500	8	36x52x19	Wal.	Cloth Wh.	225	1110.00	*For program material. Priced to \$1193 depending on style.		
	B400U	ac.sus.	(2) 12		6½	cone	(8) 1½	cone	35-20	100*	400, 2500	8	26x44x16	Wal	Cloth white	165	632.00	*As above. Price depends on style.		
	B400S	ac.sus.	(2) 12		6½	cone	(8) 1½	cone	35-20	100*	400, 2500	8	36x28x20	Wal.	Cloth, Wh.	150	758.00	*As above. Price depends on style.		
	B407	ac.sus.	(8) 8				(8) 1½	cone	30-20	150*	2000	8	18x41x16	Wal.	Cloth, Wh.	100	497.50	*As above.		
	B401	ac.sus.	12		6½	cone	(2) 1½	cone	40-20	60*	800, 2500	8	18x25x13	Wal.	Foam, brn.	65	269.50	*As above. B-402 is shelf mount.		
	B301F		12		4½	cone	1½	cone	40-20	50*	1200, 3600	8	14x23x11	Wal.	** brn.	40	189.50	*As above. B-301A is shelf mount.		
	B201	port	8			1½	cone		40-20	60*	1800	8	20x12x10	Wal.	Cloth brn.	30	99.50	*As above.		
	B1000	ac.sus.	8						50-10	60*		8	18x21x12	Wal.	Metal, gold	25	99.50	*As above. Metal-enc. outdoor speaker.		

Introducing

A new family of loudspeakers from Acoustic Research



AR-10 π

The AR-10 π is the most accurate musical reproducer that Acoustic Research has ever made. It shares the characteristics of AR's previous speaker systems, smoothness of response, uniform dispersion, and low distortion. A significant additional feature of the AR-10 π is its ability to deliver uniform flat energy response in most listening rooms.

Further, the designed-in performance of the AR-10 π is preserved, whether the speaker is positioned against a wall, in a corner, or even in the middle of a room. Setting a single switch, called the 'Woofer Environmental Control', will ensure the correct level of bass energy for any of these positions. It is not possible to do this accurately with conventional loudspeaker designs or equalization techniques.

AR-11

The performance, drivers, and crossover of the AR-11 are identical to those of the AR-10 π , except that the AR-11 does not incorporate a Woofer Environmental Control and the associated crossover components.

The AR-11 is designed for optimum performance when placed against a wall, as in the conventional bookshelf position, or slightly away from two adjoining room surfaces.

Both the AR-10 π and the AR-11 use a 12 inch acoustic suspension woofer, a 1½ inch dome midrange, and a newly designed ¾ inch dome highrange.

AR-MST/1

The AR Miniature Studio Transducer offers at moderate cost the flat energy response of AR's other new speaker systems, together with the high power-handling capability required in many professional applications. Along with the AR-MST/1's small size, light weight, and shallow depth, these characteristics make the speaker especially appropriate for the monitoring of remote-location recordings as well as the accurate reproduction of music in the home, even at relatively high sound levels.

Guarantee

The workmanship and performance of all AR speaker systems are guaranteed for five years.

A complete description of the new family of AR speakers is available free. Mail us the coupon today.

Acoustic Research

10 American Drive
Norwood
Massachusetts 02062
Telephone 617 769 4200



☐

Please send me a complete description of the AR-10 π , AR-11, and AR-MST/1 speaker systems.

☐

Please send me the AR demonstration record 'The Sound of Musical Instruments' (check for \$5 enclosed)

Name _____

Address _____

Check No. 2 on Reader Service Card

AU10

Speakers

MANUFACTURER	MODEL	Enclosure type	Woofer dia., in.	Woofer resonance (in system)	Midrange dia., in.	Midrange type	Tweeter dia., in.	Tweeter type	Level control(s)	M=Mid, T=tweeter	Anechoic freq. response, Hz-kHz, ± 2 dB	Sens. for 1 W, 1 mtr, dB SPL, ± 2 dB	Power-handling capability, continuous watts	Crossover frequencies, Hz.	Impedance, nominal	Dimensions, inches	Wood finish	Grille material, color	Weight, lbs.	Price, \$	NOTES
BO SONICS	Concert 5000	port	15, 10	39	10	cone	*	*			20-44	112	500	250, 5000, 9000	8	25x35 x21	Wal.	Foam**	105	449.00	*3 1/2" pz, 2" x6" horn. **Choice, various colors.
	Encore 1000	Ac.sus	15	42	5	cone	*	*			20-27	102	250	500, 5000	8	18x26 x14	Wal.	Foam**	45	199.00	*2 1/2" pz. **Choice, various colors.
B&W ELECTRONICS	DM2A	port	8		1 1/4	dome	%	dome	M		30-22 ± 3	83*	60	3k, 14k	8	14x25 1/2 x13 1/2	Wal.	Cloth. blk.	49	350.00	*At 400 Hz; 13 w gives 95 dB SPL. X-overs, 18 dB/oct., phase corrected. *At 400 Hz; 3.6 w gives 95dB SPL. X-overs, 18 dB/oct., phase corrected.
	DM4	port	8		1 1/4	dome	%	dome			35-22 ± 4	90*	40	3.5k, 14k	8	10x10 x21	Wal.	Cloth. blk.	24	230.00	*At 400 Hz; 10 w gives 95 dB SPL. X-overs, 18 dB/oct., phase corrected.
	D5	Ac.sus.	5				1	dome			40-20 ± 4	86*	30	3000	8	9x18 x7	Wal.	Cloth. blk.	14	135.00	*At 400 Hz; 17 w gives 95 dB SPL. X-overs, 18 dB/oct., phase corrected.
	DM70	Ac.sus.	13	28	*	es	*	es			22-18 ± 2	83*	125	500	8	27x32 1/2 x15 1/2	Wal.	Cloth. bn. blk.	80	850.00	*At 400 Hz; 17 w gives 95 dB SPL. X-overs, 18 dB/oct., phase corrected.
CAMBRIDGE (C/M)	TL200	port	13x 9 1/2	30	5 1/2	cone	1 1	dome dome			25-25 ± 5	80	25	400, 3k, 10k	8	13x4 1/2 x17 1/2	Teak, Wal.	Plas. ribs	98	500.00	
	TL100	port	13x 9 1/2	35	5 1/2	cone	1	dome			30-18 ± 5	80	25	400, 3k	8	12 1/2x31 1/4 x13	Teak, Wal.	Plas. ribs	52	400.00	
C/M LABS	CM15	Ac.sus.	15	5	6	cone	*	*	M,T		20-22 ± 2.5	96	50	450, 5k	4	17x34 x17	Wal.	Cloth. blk.	97	500.00	Includes feedback winding and terminals. *Tweeter 2 1/2-in. cone, super-tweeter 3-in. horn.
CERWIN-VEGA	15T	port	15	30	8*	**	5	dhorm	M,T			103	150	200, 1.5k, 4k	8/6	16 1/2x40 x16 1/2	Wal.	Cloth. blk.	95	499.50	
	25	port	12	45			1	dome	T			95	40	2500	8/6	14 1/2x25 x12	Wal.	Cloth. blk.	40	139.50	
	36R	port	12	40	5	cone	2 1/2	dhorm	M,T			97	60	400, 3k	8/6	14 1/2x25 x12	Wal.	Foam, blk.	48	189.50	
	12T	port	12	30	8	cone	2 1/2	dhorm	M,T			100	100	200, 4k	8/6	13 1/2x40 x13 1/2	Wal.	Cloth. blk.	75	299.50	
	26	port	12	42			2 1/2	dhorm	T			96	60	2500	8/6	14 1/2x25 x12	Wal.	Foam, blk.	42	149.50	
	317	port	15	35	8	cone	5	dhorm	M,T			103	150	200, 8k	8/6	20x27 1/2 x17	Wal.	Foam, blk.	77	395.00	
CRAIG	5701	Port	10				2	cone			40-18 ± 5	94	20	3500	8	16 1/4x24x 13 1/2		Foam	36 1/2	79.95	
	5702	Port	12		4 1/2	cone	2	cone			25-20 ± 5	94	30	1k, 8k	8	19 1/4x27x 14 1/2		Foam	46	119.95	
CROWN	ES-212	Ac.sus.	(2) 10	45			(12)	Es	T		22-30		300	375	4	26x21x42	Wal.	Cloth, black	110	595.00	
DAHLQUIST	DQ-10	Ac.sus.	10*	43	5 2	cone dome	% (1)	dome Pz	**		37-27 ± 5			400 1k, 6k, 12.5k	8	30 1/2x31 1/2 x9	Wal.	Cloth, black	53	395.00	*10-in. woofer in 12-in. basket for longer throw. ** Slope ± 1 dB @ 6 kHz, ± 5 dB @ 18 kHz. **As above.
	DQ-6	Ac.sus.	12	43	5	cone	%	dome	M/T **		30-20 ± 5			500, 3.5k	8	28 1/2x14 1/2 x12 1/2	Wal.	Cloth, black	45	250.00	
DATHAR ACOUSTICS	DA-I	Ac.sus	(6) 5	26			(6) 2%	cone	T		22-22 ± 3	97	80	1500	8	25x15x 13%	Wal.	Foam black	57 1/2	660.00	
	DA-II	Ac.sus	(2) 8	35			(4) 2%	cone	T		40-22 ± 5	97	40	1500	8		Wal.	Foam black	42	360.00	
DAYTON-WRIGHT	X6-8MK3	Es	*					(2) Pz	T		30-20 ± 4	90	350	16.5k	4	39x39x 9 1/2	*	*	63 *	2692.00	*Full range electrostatic (10 cells), plus 2 piezoelectric super-tweeters. Avail. in black pebble finish w/anodized aluminum, rosewood, or walnut. Price includes electrostatic energizer (wght. 95 lbs).
	TL4	port	12	7	(2) 6 1/2	cone	(6) 2	Pz	M,T		19-18 ± 5	92	125	150, 750, 6k	4	18x53x16	Rose	Foam, black	98	595.00	As kit only, includes all wood parts precut and finished.

Avid makes the differences in speakers clear.

If you're a real stereo buff, you know that flat frequency response means flat, uncolored sound.

Like several other manufacturers, we too try to build the flat-test, most linear frequency response we can into our speakers.

But we don't stop there. Because we know that great sound depends on more than just frequency response.

Transient response, for instance.

It's all in your head

To understand transient response, it's important to understand how you hear.

You see, you don't really hear with your ears. You hear with your brain.

For instance, it's the brain that helps you identify what you're listening to. The direction it's coming from. And that re-creates that illusion of "being there."

The thing is, every musical note is really a complex tone. A basic tone—the fundamental—plus subtle musical overtones—harmonics—that give very instrument a unique personality.

This basic tone, together with all those changing harmonics, is called a transient. The brain takes all of them into account in interpreting any sound the ear receives.

On making things imperfectly clear

It's when a speaker can't react quickly or accurately enough to all those changing musical notes, all those transients, that distortion can occur.

And distortion means muddy-sounding music. With little definition or clarity.

A bad situation made worse when a speaker over-reacts to all those changing tones. The speaker actually adds tones of its own. And that's bad.

Most experts feel the best way to measure transient response is with tone bursts. Pure tones of various frequencies are rapidly switched on and off to simulate the transient nature of voice and instrument signals.

In Pattern A, the speaker hasn't reproduced accurately. It's completely overshot the level of the input signal. And the result is a sizzling, hot sound. Totally colored.

In Pattern B, the speaker has taken too long to react. This "hangover" can cause considerable blurring. So what you hear is dull and lifeless.

Now look at Pattern C. The speaker here has reacted both quickly and accurately. And the result is exceptional clarity and definition. The kind that Avid builds into all of its speakers.

The proof is in the hearing

Now you know there's a lot more to a speaker than just flat frequency response. Like good transient response.

But even the best, most accurate transient

response in the world isn't the be-all and end-all of a superb speaker. There's more.

The point is, we're a company that is committed to one thing and one thing only. The design and construction of the clearest, best-sounding stereo speaker systems in their price range.

But you've got to hear for yourself. So go to your hi-fi store and listen to an Avid.

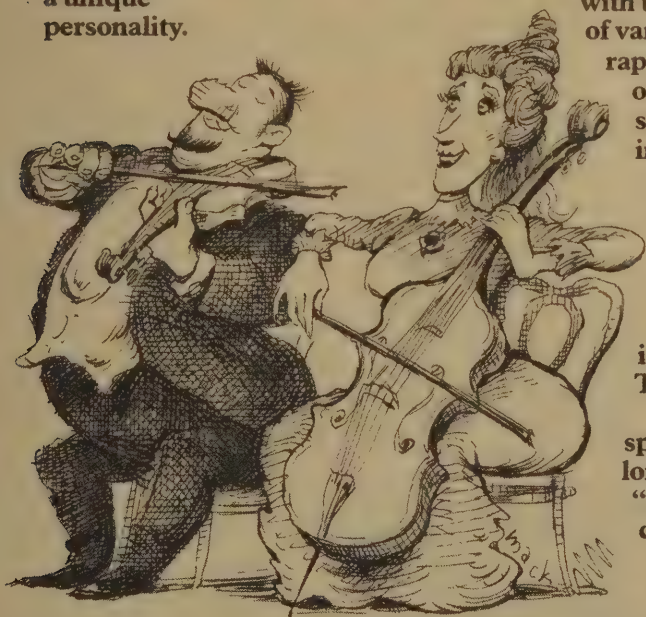
Then some other speaker in the same price category.

Then decide. We don't think you're going to have any trouble at all.

AVID

CORPORATION

10 Tripps Lane, East Providence, R.I. 02914
Distributed in Canada by:
Kairon Electronics, Montreal, Quebec.



Not only that, musical notes are constantly starting and stopping. When they do, the number and intensity of the harmonics change.

Check No. 9 on Reader Service Card

Speakers

MANUFACTURER	MODEL	Enclosure type	Woofer dia., in.		Woofer resonance (in system)		Midrange dia., in.		Midrange type		Tweeter dia., in.		Tweeter type		Level controls		Anechoic freq. response		Sensitivity, 1 W input, dB SPL, 1 mtr. on axis, 100 Hz-10 kHz		Power handling capability, continuous watts		Crossover frequencies, Hz.		Impedance, nominal		Dimensions, inches		Wood finish		Grille material, color		Weight, lbs.		Price, \$		NOTES
DESIGN ACOUSTICS	D-2	Ac.sus	10	41			1%	dome	T	40-16 +3.5	90	*	1500	8	35x12½x 12%	Wal.	Cloth, black	35	150.00																		
	D-6	port	10	30	5	cone	(5) 2%	cone	M,T	30-16 ±2.5	90	40	800, 2k	8	24½x16½x 13%	Wal.	Cloth, black, brown	50	279.00																		
	D-4	Ac.sus	10	43	5	cone	(3) 2%	cone	M,T	45-16 +3	88	30	800, 2k	8	38x9½x 17%	Wal.	Cloth, black	48	199.00																	*Oatmeal or black.	
	D-12	port	10	27	5	cone	(9) 2%	cone	M,T	30-15 ±2	89	50	800, 1600	8	30x22*	Wal.	Cloth, black	53	399.00																	*22-in. diameter, omnidirectional.	
DYNACO	A-40XL	Ac.sus	10				1	dome	T		92	50	1200	8	22½x13½x 10	Wal.	Beige, linen	32	149.00																		
	A-25XL	Ac.sus	10				1	dome	T		92	50	1500	8	20x11½x 10	Wal.	Beige, linen	25	109.00																		
	A-35	Ac.sus	10				1½	dome	T		90	35	1200	8	22½x12½x 10	Wal.	Beige, linen	30	129.00																		
	A-25	Ac.sus	10				1½	dome	T		90	35	1500	8	20x11½x 10	Wal.	Beige, linen	24	92.50																	Avail. Rosewood (A-25R) \$102.50. Teak (A-25T) \$102.50. Vinyl walnut (dark grille) A25VW, \$84.00.	
	A-10VW	Ac.sus	6½				1½	dome			87	25	2500	8	15x8½x8	Wal.	Cloth, brown	30 (pr.)	110.00 (pr.)																		
	A-50	Ac.sus	(2) 10				1½	dome	T		90	50	1000	8	21½x28x 10	Wal.	Cloth, brown, linen	47	189.00																		
ELECTROSTATIC RESEARCH	139-3W	Ac.sus	10	45	5	cone		(8) Es		30-20 ±2		100	100, 3k	8	16x28x16	Vinyl wal.	Foam	47	199.90																		Omnidirectional tweeter array. As above.
	108	Ac.sus	10	45				(8) Es	M,T	30-20 +2½		100	1200	8		Vinyl wal.	Cloth		189.90																		As above.
	88	Ac.sus	8	55				(8) Es	M,T	30-20 ±3		60	1200	8		Vinyl wal.	Cloth		139.90																		As above.
ELECTRO-VOICE	Sentry III	port	15	40	8½x 32	*horn	4x6	*horn	M,T	40-18 +3	98	50	600, 350	8	34½x20½ x28½	Wal.	Cloth, black	156	650.00																		*Sectoral horn mid, tweeter. Opt. SED equalizer, \$60.00.
	Interface: A	port*	12	32	8	cone	(2) 2	cone	T	32-20 +3	89	25	55, 1500	8	14x7½x 22	Wal.	Cloth, black	35	450.00																		*Plus vent substitute cone. W. equalizer.
	Interface: B	port*	10	36	8	cone	2	cone	T	36-18 ±3	92	25	55, 1500	8	14x23x 9½	Wal.	Cloth, black	27	325.00																		*Plus vent substitute cone. W. equalizer.
	EVS-16B	Ac.sus	12	30	8	cone	2	cone	T	30-20 +5	91	25	700, 3000	8	14x25x 13½	Wal.	Cloth, brown	45	159.95																		
	EVS-15B	Ac.sus	10	40	5	cone	2	cone	T	40-20 +5	90	25	700, 3000	8	13½x24x 11½	Wal.	Cloth, brown	39	139.95																		
	EVS-14B	Ac.sus	10	40	5		2½	cone	T	40-18 +5	89	25	1500	8	13½x24x 11½	Wal.	Cloth, brown	28	109.95																		
	EVS-13B	Ac.sus	8	50			2½	cone	T	50-18 +5	88	20	1500	8	10x19x 8½	Wal.	Cloth, brown	19	69.95																		
	Musicaster IIA	port	*	80							80-10	94	20	4000	8	21½x21½ 8½	*		29	109.50																*Outdoor system. Musicaster IIA has super tweeter, 16k resp., \$138.00.	
EPI	350	Ac.sus	(3) 8				(3) 1	*	T	30-20		25	1.8	8	18x38x18	Wal.	Cloth, black	75	350.00																		*Air spring.
	250	Ac.sus	(2) 8				(2) 1	*	T	35-19		20	1.8	8	15x25x15	Wal.	Black	40	239.00																		*Air spring.
	180	Ac.sus	(2) 8				(2) 1	*	T	40-18		20	1.8	8	16x25x12	Vinyl	Black	35	189.00																		*Air spring.
	110	Ac.sus	8				1	*	T	35-18		15	1.8	8	14x24x10	Vinyl	Black	30	120.00																		*Air spring.
	100	Ac.sus	8				1	*	T	45-18		12	1.8	8	11x21x9	Wal.	Black	25	100.00																		*Air spring.
	90	Ac.sus	8				1	*		45-18		12	1.8	8	11x21x9	Vinyl	Black	25	70.00																		*Air spring.
	60	Ac.sus	6				1	*		50-18		10	1.8	8	8½x15½x 6½	Vinyl	Black	15	70.00																		*Air spring.
	Microtower MT 3	port	(4) 4½				(2) 1	*		40-18		25	200, 3000	8	11½x11½ x48	Vinyl	Black	55	540.00																		*Air spring.
	Microtower MT 2	port	(2) 4½				(2) 1	*		50-18		15	200, 3000	8	8½x32x 8½	Vinyl	Black	28	360.00																		*Air spring.
	Microtower MTB 2	port	(2) 4½				1	*	T	40-18		5	1800	8	14x24x10	Vinyl	Black	30	300.00																		*Air spring.
Microtower MT 1	port	(2) 4½					*		50-15		5	200	4	8½x31x 8½	Vinyl	Black	21	200.00																		*Air spring.	
EPICURE	Tower 1000	Ac.sus	(4) 8				(4) 1	*		22-20		60	1.8	8	18x78x18	Wal.		180	1000.00																		*Air spring.
	400 +	Ac.sus	(4) 6				(4) 1	*	T	27-20		25	1.8	8	14x38x14	Wal.		90	399.00																		*Air spring.
	Twenty	Ac.sus	(2) 8				(2) 1	*	T	30-20		20	1.8	8	18x27x12	Wal.		40	229.00																		*Air spring.
	Eleven	port	6	36			1	*	T	33-19		15	1.8	8	13½x21½ x9½	Wal.		36	134.00																		*Air spring.
	Ten Five	Ac.sus	8				1	*	T	40-20 55-18		12 10	1.8 1.8	8 8	12x22x9 11x15x8	Vinyl Vinyl		25 30 pr.	109.00 75.00																		*Air spring. *Air spring.
EMPIRE	9000GT	Ac.sus	15	60	(2) ¾	dome	1	dome	M,T	15-25 +5	150	450, 5000	8	18½x30x 17	Wal.	Cloth, black	50	659.90																			Glass top. Octagonal.
	7500	Ac.sus	15	65	(2) ¾	dome	1	dome	M,T	25-20 ±5	125	450, 5000	8	18x25x18	Wal.	Cloth, black	45	499.90																			Octagonal.
	6500	port	12	80	1	cone	¾	cone	M,T	30-20 +5	100	450, 5000	8	17½x 25½*	Wal.	Cloth, black	30	319.90																		*Cylindrical, can be used outdoors.	
	6000	port	12	80	1	cone	¾	cone	M,T	30-20 ±5	100	450, 5000	8	18x25x18	Wal.	Cloth, tan	35	299.90																			Octagonal.
EQUASOUND	1	Ac.sus	12	35	4	cone	1	dome	T	35-20			400, 2500	8	16x32x12	Wal.	Cloth, black	50	350.00																		
	2	port	12	30	4	cone	(3) 1	dome	T	30-20			400, 2500	8	42x14½x 14½	Wal.	Cloth, black	65	225.00																		



BOSE ON INNOVATION

Multiple Acoustically Coupled Drivers

There is one, and only one, reason for innovation in loudspeaker design...to produce a better musical experience. If the innovations are based on thorough research and executed with exceptional skill, they can produce truly dramatic results.

The Bose 901[®] eliminates woofers, tweeters and crossover networks by using nine matched full range drivers in each enclosure. The close spacing of the drivers results in acoustic coupling which causes the resonant frequencies of each driver to diverge from those of every other driver. This means that only one driver out of nine can be in resonance at a time—a proportion which is inaudible and which effectively smooths the frequency response. The result of

this patented design is a freedom from audible coloration and extreme clarity of reproduction. Listen to the 901 in comparison to any speaker of your choosing...and understand how Bose Innovation has produced the most highly reviewed speaker...regardless of size or price. The Direct/Reflecting[®] 901. By Bose.

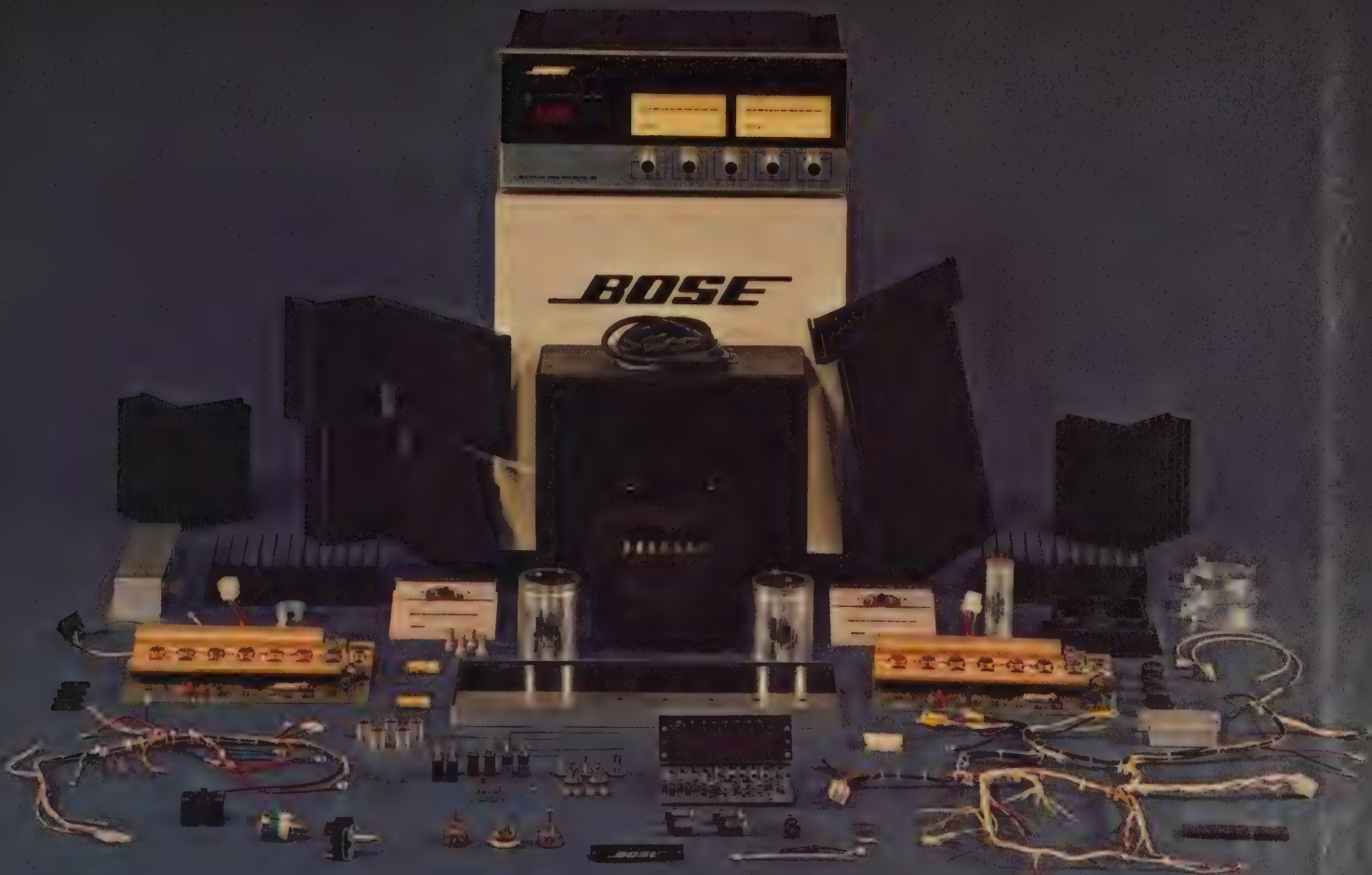
BOSE

The Mountain, Framingham, MA 01701

Please write us for the complete story of the 901.
901 cabinet is walnut veneer on particle board.

Speakers

MANUFACTURER	MODEL	SPECIFICATIONS																		NOTES
		Enclosure type	Woofer dia., in.	Woofer resonance (in system)	Midrange dia., in.	Midrange type	Tweeter dia., in.	Tweeter type	Level controls	Anechoic freq. response, Hz	Sens. for 1 W input, dB SPL, 1 mtr. on-axis, 100 Hz to 10 kHz	Power-handling capability, continuous watts	Crossover frequencies, Hz	Impedance, nominal	Dimensions, inches	Wood finish	Grille material, color	Weight, lbs.	Price, \$	
ESS	AMT-1 Tower	port	10	40			*	T	20-22	88	60	900	4/6	15x43½x17½	Wal.	Black		399.00	*Heil AMT.	
	AMT-3	Ac.sus	(2) 10	50	cone		*	T	35-22	91	100	400, 15k	4/6	15½x39¼x16	Wal.	Brown		469.00	*Heil AMT.	
	AMT-4	Ac.sus	10	50			*	T	30-25	88	60	1200	4/6	15½x27x12½	Wal.	Brown		269.00	*Heil AMT.	
	AMT-6	Ac.sus*	(2) 12	42			*	T	30-25	90	110	1500	4/6	24½x47¼x18½	Wal.	Brown		695.00	*Array, 4 Heil AMTs.	
	AMT-1A	port	12	20			*	T	30-25 ±3.5	35	75	1000	4/6	33x14½x14½	Wal.	Cloth, black			*Heil AMT.	
	Evaluator	port	12	21			*	T	30-25 ±3.5	45	75	1000	4/6	24x14x14	Wal.	Cloth, gray		328.00	*Heil AMT.	
	Tempest Lab Series I	port	12	21			*	T	30-25 ±5	45	60	1500	4/6	27x15x14	Vinyl, black	Foam**		219.00	*Heil AMT. **Brown, blue, rust, green.	
	Tempest Lab Series 2	port	10	29			*	T	35-25 ±5	45	50	1500	4/6	24½x13½x13½	Wal.	Foam**		169.00	*Heil AMT. **Brown, blue, rust, green.	
Tempest Lab Series 3e	port	8	38			*		40-25 ±5	45	40	1500	4/6	22x12½x10½	Wal.	Foam**		08.00	*Heil AMT. **Brown, blue, rust, green.		
FAIRFAX	F2A	port	8	55		3½	cone		40-20		25	5.5k	8	12x9x18	Wal.	Foam, brown	25	69.95		
	FX100B	port	8	50		3½	cone	T	40-20		30	2k	8	12x10x22	Wal.	Foam, brown	30	109.95		
	FX300	port	10	47		3½	cone	T	34-20		50	2k	8	14x10½x22	Wal.	Foam, brown	42	129.95		
	FTA-3	horn	10	45	5	cone	1	dome	T,M	30-20		1k, 5.5k	8	14x12x24	Wal.	Foam, brown	50	169.95		
	FX350	port	10	39	5	cone	3½	cone	T,M	24-20		1k, 5.5k	8	14x12x36	Wal.	Foam, brown	70	199.95		
	FX400	port	(2) 10	35	5	cone	3½	cone	T,M	20-20		80	1k, 5.5k	8	28x14x28	Wal.	Foam, brown	105	289.95	
	WALL OF SOUND	port	(6) 8	35	(2) 5	cone	*	*	20-20		100	800, 2k, 5k, 9k	6.5	30x6½x52	Wal.	Cloth, brown	125	429.95	*Two 1-in. dome and two ¾-in. cone tweeters.	
FORUM (AUDIMAX)	HE 153	Ac.sus	15	38	6	cone			45-20 ±4	94	15	2500	8	22x12½x8½	Wal.	Foam, brown	18	69.95		
	HE 123	Ac.sus	12	40	6	cone			30-20 ±4	93.5	30	2000	8	24x14x10½	Wal.	Foam, brown	26	89.95		
	HE 102	Ac.sus	10	46		cone			25-20 ±4	94	45	1500, 8k	8	27½x19x12	Wal.	Foam, brown	45	129.95		
	HE 82	Ac.sus	8	59		cone			20-20 ±4	94	60	1500, 8k	8	27½x19x12	Wal.	Foam, brown	49	159.95		
	Standard SP 312X	Ac.sus	12	38	6	cone			25-20	90	40	1500, 8k	8	24x14x12	Wal.	Foam, brown	32	109.95		
	Standard SP 312	Ac.sus	12	40	3½	cone			28-19.5	90	30	2000, 8k	8	24x14x10½	Wal.	Foam, brown	27	79.95		
	Standard SP 210	Ac.sus	10	45	3½	cone			35-18.5	90	18	3000	8	22x12½x8½	Wal.	Foam, brown	19	59.95		
	Standard SP 28	Ac.sus	8	94		cone			80-17.5	90	10	10k	8	17x11½x8½	Wal.	Foam, brown	15	39.95		
	Standard SP 16	port	6	110		cone			90-15	90	8		8	14x9x6½	Wal.	Foam, brown	8	29.95		
	Standard 310	Ac.sus	10	45	3½	cone			35-19.5	92	25	2500, 8k	8	22x12½x8½	Wal.	Foam, brown	20	69.95		
	FRAZIER	Concerto	port	10		3x7 3	horn pz		T		93	30	2k, 4k, 3k, 4k	8	16x21½x16	Wal.	Foam, var.	56	235.00	
Mark VI-A		port	12		3x7 3	horn pz		M,T		97	30	600, 3k, 4k	8	29¼x23¼x16	Wal.	Cloth, cocoa & gold	103	450.00		
Super Monte Carlo		port	8		3	pz				93	20	4k	8	10½x19x12	Wal.	Cloth, brown	31	100.00		
Mark IV-A		port	10		3x7	horn		T		93	30	2k, 4k	8	24x14x12	Wal.	Foam, var.	44	150.00		
Mark V		port	12		3x7	horn		M,T		94	30	800, 3k	8	25¼x14x12	Wal.	Foam, var.	55	270.00		
Seven		port	12		(2) 3x7	horn		M,T		96	30	500, 3k	8	29x19x16	Wal.	Foam, var.	98	350.00	Hi or Lo boy.	
Supermidjet		port	4							89	10		8	15¼x6¼x9½	Wal.	Cloth,	14	50.00		
GOLLEHON	8220/M	horn	15	55	3½	dome	1½	dome	M,T	50-18 ±5	121	150	500, 3.5k	8	47x28x25	Epx.		120	648.00	
	8218/M	port/horn	15	55	3½	dome	1½	dome	M,T	28-18 ±5	121	150	500, 3.5k	8	55x33x25	Epx.		160	850.00	
HARTLEY	Concertmaster VI	Semi-inf.	24	13	10	cone	7 1	cone dome		16-25		200, 3k, 7k	6/8	40½x29x18	Wal.	Cloth, gold	145	965.00	Concertmaster V, black cloth grille, \$940.	
	Concertmaster IV	Semi-inf.	18	17	10	cone	7 1	cone dome		16-25		200, 3k, 7k	6/8	30x29x16	Wal.	Cloth, gold	120	910.00	Concertmaster III, black cloth grille, \$885.	
	Concertmaster Jr.	Semi-inf.	10	28	3	cone	1	dome		20-25		2k, 5k	5/8	30x24x14	Wal.	Cloth, gold	80	350.00	Holton A, similar to Concertmaster Jr. but black cloth grille, \$335.	
	Holton Jr.	Semi-inf.	10	30	3	cone	1	dome		25-25		2k, 5k	5/8	30x15x12	Wal.	Cloth, black	55	285.00		
	Zodiac 75	Semi-inf.	10	40		cone	1	dome		35-25		2k	8	30x15x12	Wal.	Foam, blue, black	50	136.00		
	Zodiac 1	Semi-inf.	10	45		cone	1	dome		40-25		2k	8	21¼x14¼x8½	Wal.	Cloth, black	30	97.00		
	Zodiac 300	Semi-inf.	2x 10	40		cone	1	dome		30-25		2k	4	25½x23½x11½	Wal.	Cloth, black	60	225.00		
HAYNES	J-1	Ac.sus	(2) 8½	45		1½	dome		50-15 ±3	89	60	1500	4	1.4 cu.ft.	Wal.		40	149.50	Kit, \$89.70.	
	J-1AX	Ac.sus	(2) 8½	45	1½	dome	(2) 1	dome	50-20 ±3	90	60	1500, 7.5k	4	1.4 cu.ft.	Wal.		45	199.50	Kit, \$199.50.	
	30WK	Ac.sus	12	35					50-20 ±3				4	2.8 cu.ft.	Wal.		65	225.00	*Add-on woofer, below 175 Hz, for J-1 series.	



BOSE ON QUALITY

The 1801[®] Power Amplifier.

Much of the quality that distinguishes a truly outstanding electronic instrument from the average product goes unseen. It lies in the concern and skill of the design engineer, conservative rating of components, and extreme care in manufacturing.

For example, power transistors are costly. Yet using a large number assures that each works within its safe-area rating under any load and signal conditions. The 1801 uses 28 such power transistors.

A large power transformer is costly and heavy. In the 1801 the transformer is very large to provide tight regulation of supply voltages, providing very large power output with minimum stress on the output transistors.

Large amplifiers undergo unusual stresses during turn-on. The 1801 has a relay operated start-up circuit that limits currents and voltages in the power supply circuits during turn-on.

Yet what is on the surface perfectly complements the underlying quality of construction and design. 1300 square inches of heat sink. Two oversize VU meters. A two-position input selector. Individual gain controls for each channel. A three-position speaker selector. And a light emitting diode display of power output.

The size, power and features of the 1801 are not for everyone. But for the nearest approach to the ultimate...in quality of design, construction, and performance...there is no other amplifier.

The 1801. By Bose.

BOSE[®]

The Mountain, Framingham, Mass. 01701

Speakers

Speakers																																					
MANUFACTURER	MODEL	Enclosure type	Woofer dia., in.		Woofer resonance (in system)		Midrange dia., in.		Midrange type		Tweeter dia., in.		Tweeter type		Level controls		Anechoic freq. response, Hz-Mid, T-tweeter		Sens. for 1 W, 1 mtr., dB		Power-handling capability		Crossover frequencies, Hz.		Impedance, nominal		Dimensions, inches		Wood finish		Grille material, color		Weight, lbs.		Price, \$		NOTES
HEGEMEN LABS	H-1AV	Ac.sus	8	28			2	cone*	T	30-20 ±2.5	25	5000	8	11x8¾x 26	Vinyl	Foam, black	25	318.00 (pair)	*Aluminum. Avail. Wal. as H-1AW, \$378/pr.																		
	H-2W	Ac.sus	10	24			2	cone*	T	25-25 ±2.5	30	3500	8	34x14x12	Wal.	Foam, black	42	756.00 (pair)	*Aluminum.																		
	HB-80V	Ac.sus	8	70			2	cone*		70-40 ±2.5	20	4500	8	17½x11x8	Vinyl	Foam, black **	31	144.00 (pair)	*Aluminum. **Black or brown. Avail. Wal. as HB-80W, \$174/pr.																		
	HB-100V	Ac.sus	10	50			2	cone*		50-40 ±2.5	25	3000	8	23x13x 10½	Vinyl	Foam, **	27	204.00 (pair)	***. As above. Avail. Wal. as HB-100W, \$240/pr.																		
	HB-120V	Ac.sus	12	40			(2) 2	cones*	T	40-40 ±2.5	30	2500	8	25x14¼x 11½	Vinyl	Foam, **	32	270.00 (pair)	***. As above. Avail. Wal. as HB-120W, \$312/pr.																		
	HSW	Ac.sus	12	12						8-200 Hz	100	50- 100	8	40x18x16	Wal.		60	600.00	Sub woofer. Requires external crossover & amplifier.																		
HITACHI	HS-335	Ac.sus	10	60	5	cone	1	dome	T	45-18 ±4	91	50	700, 3k	8	21x12½x 12½	Wal.	Cloth, Brown	29	159.95																		
	HS-480	Ac.sus	12	60	5	cone	horn	horn	T	45-20 ±4	92	50	620, 4.9k	8	26¼x14½x 14½	Wal.	Cloth, Brown	36.3	179.95																		
IMF	Model R	port	8x 12	22	5	cone	¾	dome	*	**	90	50	375, 3.5k	8	28x16x 14½	Wal.	Cloth, black	65	350.00	*Impulse control.																	
	Smaller Monitor	port	8x 12	20	5	cone	1¾, ¾	domes	*	**	84	50	375, 3.5k, 13k	8	38½x16x 18	Wal.	Cloth, black	125	775.00	**Resp. curves avail. *Perspective contrl.																	
	Studio III B	port	8	24	4	cone	1⅞, ¾	domes	*	**	84	50	375, 3.5k, 13k	8	36x14x15	Wal.	Cloth, black	70	460.00	*, **As above.																	
	Super Compact	port	8	28	4	cone	1⅞	dome	*	**	84	50	375, 3k	8	18x11x 11½	Wal.	Cloth, black	20	220.00																		
INFINITY SYSTEMS	Pos II	port	10			cone	2	cone	T	43-19 ±3.5	92	100	1600	8	25x13x 11½	Wal.	Cloth, black	35	98.00																		
	1000A	port	12			cone	2	cone	T	33-21 ±4.5	93	125	1300	8	25x14x12	Wal.	Cloth, black	45	139.00																		
	Monitor Jr.	port	12		1½	dome	1	dome	T,M	30-20 ±3.5	91	200	500, 2k, 8k	8	41x11x11	Wal.	Cloth, black	50	215.00																		
	Column	port	8			cone	*	*	T	35-28 ±4.5	94	200	500, 2k, 8k	6	27½x20x 14	Wal.	Cloth, black	50	249.00	*Walsh tweeter.																	
	2000II	port	12		4	cone	*	*	T,M	28-28 ±4	92	200	800, 4k, 10k	8	41x15x13	Wal.	Cloth, black	75	349.00	*Walsh tweeter.																	
	Monitor II	port	12		1½	dome	*	*	T,M	26-28 ±4	90	200	450, 5k, 10k	8	41x15x13	Wal.	Cloth, black	94	449.00	*Walsh tweeter.																	
	Servo IA	port	18			e.s.	*	*	**	10-30 ±2	88	80V	70, 1800	16/ 8	59½x35½ x8	Rose	Foam	290	4000.00	*Walsh tweeter. **Electronic crossover.																	
JANIS AUDIO	Woofer	port	15	36						30-100 ±1.0	87	60	100*	8	22x18x22	Wal.	Wood, wal.		599.00	Sub-woofer, re- quires own amp & 18 dB/oct. x-over.																	
JANSZEN	Z-210a	Ac.sus	10	52		*	Es	M,T	38-20 ±3	98	50	1800	4	12½x17½x 11	Wal.	Foam, black	25	119.95	*Two 16-sq.-in. panels.																		
	Z-210ah	Ac.sus	10	45		*	Es	M,T	35-20 ±3	98	60	1800	4	13½x24x 11	Wal.	Foam, black	39	149.95	*Two 16-sq.-in. panels.																		
	Z-410	Ac.sus	10	45		*	Es	M,T	35-20 ±3	98	75	1800	4	13½x24x 11	Wal.	Foam, black	41	199.95	*Two 16-sq.-in. panels.																		
	Z-412a	Ac.sus	12	43		*	Es	M,T	33-20 ±3	98	100	1800	4	14½x27x 11½	Wal.	Foam, black	44	279.95	*Four 16-sq.-in. panels.																		
	Z-412hp	Ac.sus	12	38		*	Es	M,T	30-20 ±3	98	150	800	4	14½x27x 14½	Wal.	Foam, black	48	319.95	*Four 16-sq.-in. panels.																		
	Z-824	Ac.sus	(2) 12	38		*	Es	M,T	30-20 ±3	102	300	800	4	29x31x 19½	Pec.	Foam, black	120	695.00	*Eight 16-sq.-in. panels.																		
	130					*	Es	M,T	800-20 ±3	104	150	800	4	19½x7½x 10½	Wal.	Foam, brown	16	199.95	Add-on tweeter. *Four 16-sq.-in. panels.																		
	132					*	Es	M,T	1800- 20±3	104	75	1800	4	12½x7½x 9½	Wal.	Foam, black	11	99.95	Add-on tweeter. *Two 16-sq.-in. panels.																		
	134					*	Es	M,T	1800- 20±3	101	150	1800	4	13x13x10	Wal.	Foam, black	18	149.95	Add-on tweeter. *Four 16-sq.-in. panels.																		
	134a					*	Es	M,T	1800- 20±3	101	150	1800	4	13x13x10	Wal.	Foam, black	20	179.95	Add-on tweeter. *Four 16-sq.-in. panels.																		
	134hp					*	Es	M,T	800-20 ±3	101	150	800	4	13x13x10	Wal.	Foam, black	21	199.95	Add-on tweeter. *Four 16-sq.-in. panels.																		
	138					*	Es	M,T	800-20 ±3	101	300	800	4	24x13½x 11½	Wal.	Foam, black	33	299.95	Add-on tweeter. *Eight 16-sq.-in. panels.																		
JBL	L 26	Duct. port	10	—		1.4	cone	T	—	88	35*	2000	8	12½x24 x13½	Oak	Cloth, var.	42	156.00	*Program material.																		
	Decade 26	Duct. port	10	—	5	1.4	cone	M,T	—	88	50*	1500	8	13½x24 x13½	Oak	Cloth, var.	45	198.00	*Program material.																		
	L 36	Duct. port	15	—		Horn **	***	M,T	—	92	150*	800, 8.5k	8	31½x23 x22½	Wal.	Cloth, var.	145	897.00	*Program material. **w. acoustic lens.																		
	L 300	Duct. port	12	—	5	1.4	cone	M,T	—	90	50*	1500	8	14½x23½ x13½	Wal.	Foam, var.	55	318.00	***Slot loaded. *Program material.																		
	L 100	Duct. port	12	—	5	1.4	cone	M,T	—	90	75*	1000	8	24½x17½ x13	Wal.	Cloth, var.	67	426.00	*Program material. ***Slot loaded.																		
	L 65	Duct. port	10	—	5	1.4	cone	M,T	—	85	50*	1000	8	44x12 x12	**	Cloth, blu. or wte.	71	633.00	*Program material. **Wal. or satin White.																		

INVISIBLE SOUND, COMPACT AND POWERFUL.

The ADS L710 and L810 are four driver, three way speakers for audiophiles who demand studio performance from a system that is still compact enough for bookshelf placement. These systems share exceptionally wide-range frequency and power response that places them in the small select group of reference quality speakers without demanding the usual penalty of size and price.

We invite you to test them against any high quality speakers regardless of cost. Listen how accurately the virtually massless 1" soft-dome tweeter follows every detail of a solo violin. Notice how uniformly the unique mid-range driver reproduces the subtleties of a familiar voice – no brassy sound ever; instead, unmuffled openness. The 2" soft dome smoothly radiates nine times as much power into a hemisphere

as a conventional speaker of the same area. Then train your ears on the woofers. They are small in diameter for optimum transient and power response; this extends clarity and detail down into bass. It is elegantly accomplished by two active, perfectly phased drivers with unprecedented lateral excursion. You never before heard a bass drum come so much alive.

Flawless consistency in all these qualities is our uncompromising standard of excellence, and it is built into every model from ADS.

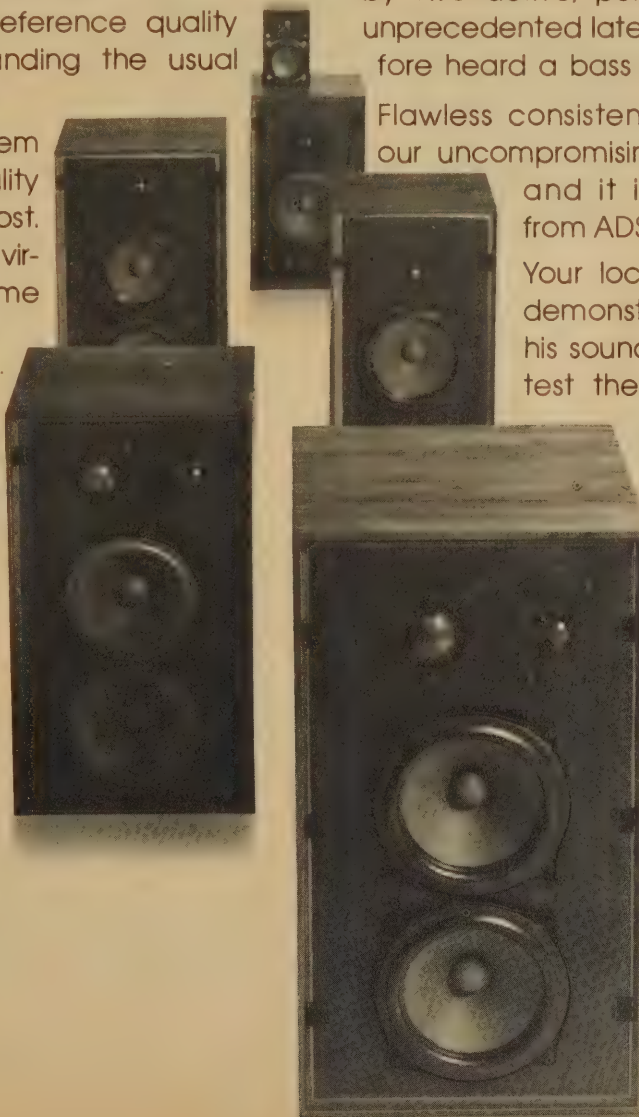
Your local ADS dealer will proudly demonstrate the L710 and L810 in his sound studio. Take the time and test them critically. Take the step beyond transparency: Experience "Invisible Sound." It then will be impossible for you to accept anything less.

Analog & Digital Systems,
64 Industrial Way,
Wilmington, Massachusetts 01887.

710C - 76 PG

ADS L710

ADS L810



Speakers

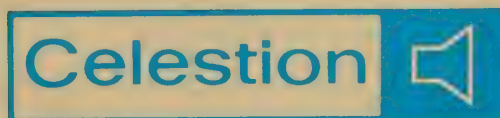
(Continued on page 95)

MANUFACTURER	MODEL	Enclosure type	Woofer dia., in.	Woofer resonance (in system)	Midrange dia., in.	Midrange type	Tweeter dia., in.	Tweeter type	Level control(s)	M-Mid, T-tweeter	Anechoic freq. response, Hz-kHz, ± ? dB	Sens. for 1 W, input, dB SPL, 1 mtr., on-axis, 100 Hz-10 kHz	Power-handling capability, continuous watts	Crossover frequencies, Hz.	Impedance, nominal	Dimensions, inches	Wood finish	Grille material, color	Weight, lbs.	Price, \$	NOTES
JENNINGS	Contrara P	ac.sus.	8	—	—	1	dome		38-24		75	1750	33x11½ x11½	Wal.	Cloth, blk			225.00			
	Contrara S	ac.sus.	8	—	—	1	dome		50-24		50	1750	15x15 x9½	Wal.	Cloth, blk			125.00			
	Contrara R	ac.sus.	8	—	—	1	dome		50-24		50	1750	12x18 x9½	Wal.	Cloth, blk			125.00			
JENSEN	21	ac.sus.	8	75	—	—	2	cone	T	35-20	91	40	4000	8	18½x11 x8½	Wal.	*	15	138.00	*Two-tone, beige & brown.	
	22	ac.sus.	10	65	—	—	2	cone	T	32-20	92	50	4000	8	22½x12½ x10½	Wal.	*	23	198.00	*Two-tone, Beige & brown.	
	23	ac.sus.	10	55	—	—	1½	dome	T	27-25	93	60	1000	8	24x13 x12	Wal.	*	34	258.00	*Two-tone, beige & brown.	
	24	ac.sus.	12	50	3	cone	1½	dome	M,T	25-25	95	75	1000, 5000	8	26x15 x13	Wal.	*	44	358.00	*Two-tone, beige & brown.	
	25	ac.sus.	15	45	(2) 3" 3"	cone	1½	dome	M,T	20-25	96	90	1000, 5000	8	18½x31 x15½	Wal.	*	62	478.00	*Two-tone, beige & brown.	
	Serenata	port	15	30	8"	cone	5, (2)1	cone, dome	M,T	20-30	98	100	300, 1500, 4000	8	23x31 x17	Wal.	Char.	80	894.00		
JOHNSON INDUSTRIES	82W	ac.sus.	8	55	—	—	3	Ring	T	40-19	30	1500	8	23x13 x12	Wal.	Cloth, brn.		27	239.00		
	123V	ac.sus.	12	23	5	cone	3	Ring	M,T	25-20	50	800, 1500	8	23½x15½ x12	Wal.	Cloth, brn.		34	319.00		
	153V	ac.sus.	15	24	4x10	Horn	3	Ring	M,T	23-22	50	800, 1500	8	28x18 x12	Wal.	Cloth, brn.		42	399.00		
	82W	ac.sus.	8	27	—	—	3	Ring	T	33-20	40	1500	8	23x13 x10	Wal.	Foam, brn.		27	339.00		
	124W	ac.sus.	12	23	4x10	Horn	3	Ring	M,T	23-25	60	800, 2.5k, 6.5k	8	23½x15½ x12	Wal.	Foam, brn.		37	439.00		
	154W	port	15	23	4x10	Horn	3	Ring	M,T	23-21	60	800, 2.5k, 6.5k	8	28x18 x15½	Wal.	Foam, brn.		45	659.00		
	2125W	ac.sus.	(2)15	23	4x10	Horn	3	Ring	M,T	18-30	100	800, 2.5k, 6.5k	8	36¼x15½ x16	Wal.	Foam, brn.		60	759.00		
	KV802	ac.sus.	8	55	—	—	3	cone	—	40-18	20	1500	8	23x13 x12	Wal.	Foam, brn.		27	139.90		
	KV1203	ac.sus.	12	55	5	cone	3	cone	—	35-19	30	800, 1500	8	23½x15½ x12	Wal.	Foam, brn.		35	199.90		
	KV1503	ac.sus.	15	23	5	cone	3	cone	—	25-19	40	800, 1500	8	28x18 x12	Wal.	Foam, brn.		42	239.90		
	W802	ac.sus.	8	65	—	—	3	cone	—	40-18	20	1500	8	23x13 x10	Wal.	Foam, brn.		27	179.90		
	W1203	ac.sus.	12	55	5	cone	3	cone	—	35-19	30	800, 1500	8	23½x15½ x12	Wal.	Foam, brn.		37	239.95		
	W1503	ac.sus.	15	23	5	cone	3	cone	—	40-18	40	800, 1500	8	25x18 x12	Wal.	Foam, brn.		45	299.90		
JVC	JVC-3	ac.sus.	10	53	—	—	2½	dome	—	35-20	86	25	2k	8	23½x13½ x10½	Wal.	Cloth, brn. or.		33	169.95	
	SX-3	ac.sus.	10	60	—	—	2	dome	T	35-20	88	25	2k	8	20x12½ x11½	Wal.		29½	159.95		
	VS-5313	ac.sus.	(4) 5	70	—	—	(4)	cone	—	35-20	88	40	5k	8	13½ dia, spherical		Metal, blk.	26½	229.95		
	VS-5391	ac.uus.	6½	—	—	—	2	cone	—	40-20	93	15	4k	8	16x9¼ x7½	Wal.	Cloth, blk.	7½	79.95		
	VS-5399	port	(2) 5	—	—	—	(2) 2	cone	—	50-20	88	10	6k	8	27½x8 x8	Wal.	Metal, blk.	13½	179.95		
KENWOOD	9	port	(2) 14				(2) ½	horn	M,T	30-18	98	200	600	8		Oak	Cloth, brn.	264	2400.00		
	7	ac.sus.	14	4			1½	dome	M,T	20-35	94	150	400, 4k, 8k	8	18½x37 x15	Wal.	Cloth, brn.	121	1350.00		
	LS-406	port	10				1	dome	T	48-20	90	60	2000	8	15x25½ x12½	Wal.	Cloth, brn.	38	149.95		
	LS-405	port	10				1	dome		58-20	90	60	2000	8	12½x23¼ x11½	Wal.	Cloth, brn.	31	119.95		
	LS-403	port	8				1½	dome		65-20	88	40	2000	8	11½x17¼ x9	Wal.	Cloth, brn.	20	84.95		
KING RESEARCH	Frankman	ac.sus.	(8) 12	27	(8) 8	cone	(16) 1½	horn		20-18 ± 4	98	200	200 5000	8	*	Var.	Cloth, brn.	250	1495.00	*One bass unit, 52½x31x24½, plus two mid-treble satellites, 10x43½x6½. Price shown for utility finish; others to \$1995.00	

Tomorrow's Sound Today



the new **UL** range by



Studio quality High Fidelity Loudspeakers

Totally designed and built by England's most experienced loudspeaker manufacturer, the high power handling CELESTION UL range offers audiophile and professional users flatter frequency response and lower distortion than speakers currently labelled "laboratory standard." The new UL range complements the Celestion Ditton Series, world renowned for ultra-wide frequency response, high efficiency, low distortion, and now featuring the new Ditton 33. Celestion UL and Ditton Series provide eight models to surpass the fastidious audiophile's exacting requirements. They are available from a select group of knowledgeable dealers. Write or check reader inquiry card No. 10 for complete specifications and the name of your nearest Celestion dealer.

Sole North American Distributors:

ROCELCO INC.
160 Ronald Dr.
Montreal, Canada H4X 1M8
Phone (514) 489-6842

Check No. 58 on Reader Service Card

Advertising Index

ADVERTISER	PAGE	ADVERTISER	PAGE	ADVERTISER	PAGE	ADVERTISER	PAGE
Ace Audio Co.	133	Dayton Wright Associates.....	99	Magnavox	19	Sansui	49
Equalizers and Preamps		Speakers		Stereo Receivers		Stereo Receivers	
Check No. 1 on Reader Service Card		Check No. 18 on Reader Service Card		Check No. 36 on Reader Service Card		Check No. 60 on Reader Service Card	
Acoustic Research Inc.	79	Discount Music Club.....	136	Maxell Corp.	16	Saxitone.....	135
Loudspeakers		Samples		Cassettes		Magnetic Tape	
Check No. 2 on Reader Service Card		Write Direct to Advertiser		Check No. 37 on Reader Service Card		Write Direct to Advertiser	
Acoustical Engineering	124	Discwasher	2	McIntosh	113	Schwann.....	133
Speaker Systems		Recording Cleaning Devices		Free Catalog		Record & Tape Guide	
Check No. 3 on Reader Service Card		Write Direct to Advertiser		Check No. 38 on Reader Service Card		Write Direct to Advertiser	
Aires	116	Dolby Laboratories.....	11	McKay Dymek	14	Scott	123
Hi-Fi Components		Broadcast Encoder		Hi-Fi Components		Hi-Fi Components	
Check No. 4 on Reader Service Card		Write Direct to Advertiser		Check No. 39 on Reader Service Card		Check No. 76 on Reader Service Card	
AKAI	17	Dynaco	15	Nakamichi.....	73	Sennheiser	8
Stereo Tape Decks		Hi-Fi Components		Cassette Systems		Speakers	
Write Direct to Advertiser		Write Direct to Advertiser		Check No. 40 on Reader Service Card		Check No. 61 on Reader Service Card	
Astatic.....	33	Elpa Marketing	59	Onkyo	20	Shure	13
Hi-Fi Components		Turntables		Receivers, Amplifiers & Speakers		Cartridges	
Check No. 5 on Reader Service Card		Write Direct to Advertiser		Check No. 41 on Reader Service Card		Check No. 62 on Reader Service Card	
Audio Amateur.....	124	Empire Scientific Corp.	61	Ortofon	21	Sonic Research.....	67
Constructors Publication		Cartridges		Hi-Fi Components		Stereo Phono Cartridge	
Check No. 6 on Reader Service Card		Check No. 19 on Reader Service Card		Check No. 42 on Reader Service Card		Check No. 64 on Reader Service Card	
Audio Analyst.....	122	ESS	5	OTARI	71	Sony.....	25
Hi-Fi Components		Hi-Fi Components		Tape Decks		Hi-Fi Components	
Check No. 7 on Reader Service Card		Write Direct to Advertiser		Check No. 44 on Reader Service Card		Check No. 65 on Reader Service Card	
Audio Dynamics Corp.	65	Fidelitone	18	PAIA	125	Soundcraftsmen.....	119
Cartridges		Recordwasher		Synthesizer Kits		Preamps	
Write Direct to Advertiser		Check No. 21 on Reader Service Card		Check No. 45 on Reader Service Card		Check No. 66 on Reader Service Card	
Audio Technica	114	Fuji.....	35	Panasonic	cover IV	Speakerlab	125
Cartridges		Hi-Fi Components		Cassette Decks		Speaker Kits	
Check No. 8 on Reader Service Card		Check No. 22 on Reader Service Card		Check No. 46 on Reader Service Card		Check No. 67 on Reader Service Card	
Auratone.....	137	Great American Sound.....	114	Phase Linear.....	10	Stax	47
Speakers		Servo-Loop Preamplifier		Hi-Fi Components		Amplifiers, Preamps, & Headphones	
Write Direct to Advertiser		Check No. 23 on Reader Service Card		Check No. 47 on Reader Service Card		Check No. 68 on Reader Service Card	
Avid Corporation	81	GTE Sylvania	55	Pickering	63	STR	118
Speakers		Stereo Receiver		Cartridges		Hi-Fi Components	
Check No. 9 on Reader Service Card		Check No. 24 on Reader Service Card		Check No. 48 on Reader Service Card		Check No. 69 on Reader Service Card	
BGW Systems.....	30,111	Hartley Products.....	120	Pioneer	cover II, 1	Superscope	cover III
Preamps		Speaker		Cassette Deck		Tape Deck	
Check No. 10 on Reader Service Card		Check No. 55 on Reader Service Card		Check No. 49 on Reader Service Card		Write Direct to Advertiser	
Hi-Fi Components		Jennings Research.....	31	Polk Audio.....	123	Tandberg.....	115,122
Check No. 11 on Reader Service Card		Loudspeakers		Hi-Fi Components		Stereo Cassette Deck	
BML	117	Check No. 25 on Reader Service Card		Write Direct to Advertiser		Write Direct to Advertiser	
Speakers		Jensen Sound Labs.....	112	Primo Co.	125	Hi-Fi Components	
Check No. 12 on Reader Service Card		Speakers		Microphones		Write Direct to Advertiser	
Bose Corporation.....	83,85	Check No. 26 on Reader Service Card		Check No. 51 on Reader Service Card		Tapco.....	70
Hi-Fi Components		Kenwood.....	29	Radio Shack	115,118	Hi-Fi Components	
Write Direct to Advertiser		Speakers, Turntables, Amplifiers & Receivers		Free Catalog		Check No. 70 on Reader Service Card	
Hi-Fi Components		Check No. 27 on Reader Service Card		Check No. 77 on Reader Service Card		TDK	9
Write Direct to Advertiser		Koss	103	Hi-Fi Components		Cassettes	
Bozak.....	12	Stereophones		Check No. 52 on Reader Service Card		Check No. 71 on Reader Service Card	
Loudspeakers		Check No. 28 on Reader Service Card		Recording Institute of America	57	TEAC.....	6,7
Write Direct to Advertiser		Lafayette Radio.....	32	Cassette Library		Reel to Reel Tape Recorders	
Braun.....	87	Free Electronics Catalog		Check No. 53 on Reader Service Card		Write Direct to Advertiser	
Speaker Systems		Check No. 30 on Reader Service Card		Rectilinear.....	101	Toyo	34
Write Direct to Advertiser		Lee West	124	Speakers		Peak Level Meter	
British Industries.....	3	Music Chair		Check No. 54 on Reader Service Card		Check No. 50 on Reader Service Card	
Hi-Fi Components		Check No. 31 on Reader Service Card		Revox Corp.	69,113	Tracker	116
Check No. 13 on Reader Service Card		Mark Levinson.....	45	Tape Recorders & Microphones		Hi-Fi Components	
BSR	57	Hi-Fi Components		Write Direct to Advertiser		Check No. 72 on Reader Service Card	
Turntables		Write Direct to Advertiser		Record Cleaning Device		United Audio.....	108,109
Check No. 14 on Reader Service Card		Lissen.....	116	Check No. 73 on Reader Service Card		Turntables	
Capital Magnetic Products	28	Hi-Fi Components		Rhoades	134	Write Direct to Advertiser	
Recording Tapes		Check No. 32 on Reader Service Card		Teledapter		Warehouse Sound.....	131
Check No. 15 on Reader Service Card		Lux Audio	43	Write Direct to Advertiser		Hi-Fi Catalog	
C/M Laboratories.....	121	Amplifiers and Tuners		Rocelco Inc.	89	Write Direct to Advertiser	
Hi-Fi Components		Check No. 34 on Reader Service Card		Speakers		Yamaha Audio.....	23
Check No. 16 on Reader Service Card		3M Company.....	27	Check No. 58 on Reader Service Card		HiFi Components	
Crown International.....	39	Hi-Fi Components		SAE	4	Check No. 74 on Reader Service Card	
Hi-Fi Components		Check No. 35 on Reader Service Card		Amplifier			
Check No. 17 on Reader Service Card				Check No. 59 on Reader Service Card			

USE THESE FREE REPLY CARDS FOR:

More facts and free literature about the products described and advertised in this issue. Check the appropriate box for immediate results.

Please fill out the name and address information to get product info, order literature.

We would like to know about you: what your interests are? what you want to read about? This assures you of interesting, helpful articles—geared to your needs.

Want to buy, trade or sell components? Want to offer or buy a service? Want a job in the audio field? Then your classified ad belongs in **AUDIO!** Rates are low—results high. Just fill out the handy, postage-free card.

Just \$7.00 For One Year!

Subscribe to **AUDIO**. Start reading the most exciting magazine for audio enthusiasts. If you already subscribe, here's a chance to renew your subscription before it runs out!

READER INQUIRY CARD

October, 1975 This card expires December 31, 1975

CHECK BOX A or B beside each coupon number

A to help me make an immediate decision to purchase

B to explore a new method or to keep my files on the subject to date.

#	A	B	#	A	B	#	A	B	#	A	B	#	A	B	#	A	B	#	A	B	#	A	B	
1			16			31			46			61			76			91			106			121
2			17			32			47			62			77			92			107			122
3			18			33			48			63			78			93			108			123
4			19			34			49			64			79			94			109			124
5			20			35			50			65			80			95			110			125
6			21			36			51			66			81			96			111			126
7			22			37			52			67			82			97			112			127
8			23			38			53			68			83			98			113			128
9			24			39			54			69			84			99			114			129
10			25			40			55			70			85			100			115			130
11			26			41			56			71			86			101			116			131
12			27			42			57			72			87			102			117			132
13			28			43			58			73			88			103			118			133
14			29			44			59			74			89			104			119			134
15			30			45			60			75			90			105			120			135

Name _____

Address _____

City _____ State _____ Zip _____

Phone number (_____) _____

Are you a subscriber to AUDIO Magazine? ☐ Yes ☐ No

READER INTEREST INFORMATION:

- | | |
|---|---|
| 1 <input type="checkbox"/> High Fidelity Enthusiast | 4 <input type="checkbox"/> Broadcast Engineer / Manager |
| 2 <input type="checkbox"/> Home Recordist | 5 <input type="checkbox"/> Audio Service Technician |
| 3 <input type="checkbox"/> Professional Recordist | 6 <input type="checkbox"/> Audio Manufacturer or Dealer |
| 7 <input type="checkbox"/> Other _____ | |

I would like to see more ☐ Technical articles ☐ Articles for beginners

- | | |
|--|--|
| <input type="checkbox"/> Construction projects | <input type="checkbox"/> Articles on music |
| <input type="checkbox"/> Music reviews | <input type="checkbox"/> Classical <input type="checkbox"/> Jazz <input type="checkbox"/> Rock |
| <input type="checkbox"/> Other _____ | |

I buy an average of _____ records a year Age _____

I have purchased the following equipment after seeing it advertised in AUDIO Magazine _____

I am planning to purchase the following equipment in the next year _____

Comments _____

SUBSCRIBE

Don't wait until your subscription runs out. Renew now and insure uninterrupted service. The remaining issues on your current subscription will be added. Postage will be paid.

Gentlemen: Please enter my subscription to **AUDIO**.

Name _____

Address _____

City _____ State _____ Zip _____

- | | |
|---|---|
| <input type="checkbox"/> New Subscription | <input type="checkbox"/> Payment Enclosed |
| <input type="checkbox"/> Renewal | <input type="checkbox"/> Bill me |
| <input type="checkbox"/> 3 Years—\$17 | <input type="checkbox"/> 2 Years—\$12 |
| <input type="checkbox"/> (Foreign—\$23) | <input type="checkbox"/> (Foreign—\$16) |
| <input type="checkbox"/> 1 Year—\$7 | <input type="checkbox"/> (Foreign—\$9) |

You may pay for your subscription on your credit card.

☐ American Express

Credit Card No. _____ ☐ Diners Club

☐ Master Charge

Card expires _____ Bank No. _____

Signature _____

Advertising Index

ADVERTISER	PAGE	ADVERTISER	PAGE	ADVERTISER	PAGE	ADVERTISER	PAGE
Ace Audio Co.	133	Dayton Wright Associates.....	99	Magnavox	19	Sansui.....	49
Equalizers and Preamps		Speakers		Stereo Receivers		Stereo Receivers	
Check No. 1 on Reader Service Card		Check No. 18 on Reader Service Card		Check No. 36 on Reader Service Card		Check No. 60 on Reader Service Card	
Acoustic Research Inc.	79	Discount Music Club.....	136	Maxell Corp.	16	Saxitone.....	135
Loudspeakers		Samples		Cassettes		Magnetic Tape	
Check No. 2 on Reader Service Card		Write Direct to Advertiser		Check No. 37 on Reader Service Card		Write Direct to Advertiser	
Acoustical Engineering	124	Discwasher	2	McIntosh.....	113	Schwann.....	133
Speaker Systems		Recording Cleaning Devices		Free Catalog		Record & Tape Guide	
Check No. 3 on Reader Service Card		Write Direct to Advertiser		Check No. 38 on Reader Service Card		Write Direct to Advertiser	
Aires	116	Dolby Laboratories.....	11	McKay Dymek	14	Scott	123
Hi-Fi Components		Broadcast Encoder		Hi-Fi Components		Hi-Fi Components	
Check No. 4 on Reader Service Card		Write Direct to Advertiser		Check No. 39 on Reader Service Card		Check No. 76 on Reader Service Card	
AKAI	17	Dynaco	15	Nakamichi.....	73	Sennheiser	8
Stereo Tape Decks		Hi-Fi Components		Cassette Systems		Speakers	
Write Direct to Advertiser		Write Direct to Advertiser		Check No. 40 on Reader Service Card		Check No. 61 on Reader Service Card	
Astatic.....	33	Elpa Marketing	59	Onkyo	20	Shure	13
Hi-Fi Components		Turntables		Receivers, Amplifiers & Speakers		Cartridges	
Check No. 5 on Reader Service Card		Write Direct to Advertiser		Check No. 41 on Reader Service Card		Check No. 62 on Reader Service Card	
Audio Amateur.....	124	Empire Scientific Corp.	61	Ortofon.....	21	Sonic Research	67
Constructors Publication		Cartridges		Hi-Fi Components		Stereo Phono Cartridge	
Check No. 6 on Reader Service Card		Check No. 19 on Reader Service Card		Check No. 42 on Reader Service Card		Check No. 64 on Reader Service Card	
Audio Analyst.....	122	ESS	5	OTARI	71	Sony.....	25
Hi-Fi Components		Hi-Fi Components		Tape Decks		Hi-Fi Components	
Check No. 7 on Reader Service Card		Write Direct to Advertiser		Check No. 44 on Reader Service Card		Check No. 65 on Reader Service Card	
Audio Dynamics Corp.	65	Fidelitone	18	PAIA	125	Soundcraftsmen.....	119
Cartridges		Recordwasher		Synthesizer Kits		Preamps	
Write Direct to Advertiser		Check No. 21 on Reader Service Card		Check No. 45 on Reader Service Card		Check No. 66 on Reader Service Card	
Audio Technica	114	Fuji.....	35	Panasonic.....	cover IV	Speakerlab	125
Cartridges		Hi-Fi Components		Cassette Decks		Speaker Kits	
Check No. 8 on Reader Service Card		Check No. 22 on Reader Service Card		Check No. 46 on Reader Service Card		Check No. 67 on Reader Service Card	
Auratone	137	Great American Sound.....	114	Phase Linear.....	10	Stax	47
Speakers		Servo-Loop Preamplifier		Hi-Fi Components		Amplifiers, Preamps, & Headphones	
Write Direct to Advertiser		Check No. 23 on Reader Service Card		Check No. 47 on Reader Service Card		Check No. 68 on Reader Service Card	
Avid Corporation.....	81	GTE Sylvania	55	Pickering	63	STR	118
Speakers		Stereo Receiver		Cartridges		Hi-Fi Components	
Check No. 9 on Reader Service Card		Check No. 24 on Reader Service Card		Check No. 48 on Reader Service Card		Check No. 69 on Reader Service Card	
BGW Systems.....	30,111	Hartley Products.....	120	Pioneer.....	cover II, 1	Superscope	cover III
Preamps		Speaker		Cassette Deck		Tape Deck	
Check No. 10 on Reader Service Card		Check No. 55 on Reader Service Card		Check No. 49 on Reader Service Card		Write Direct to Advertiser	
Hi-Fi Components		Jennings Research.....	31	Polk Audio.....	123	Tandberg.....	115,122
Check No. 11 on Reader Service Card		Loudspeakers		Hi-Fi Components		Stereo Cassette Deck	
BML	117	Check No. 25 on Reader Service Card		Write Direct to Advertiser		Write Direct to Advertiser	
Speakers		Jensen Sound Labs.....	112	Primo Co.	125	Hi-Fi Components	
Check No. 12 on Reader Service Card		Speakers		Microphones		Write Direct to Advertiser	
Bose Corporation.....	83,85	Check No. 26 on Reader Service Card		Check No. 51 on Reader Service Card		Tapco	70
Hi-Fi Components		Kenwood	29	Radio Shack.....	115,118	Hi-Fi Components	
Write Direct to Advertiser		Speakers, Turntables, Amplifiers & Receivers		Free Catalog		Check No. 70 on Reader Service Card	
Hi-Fi Components		Check No. 27 on Reader Service Card		Check No. 77 on Reader Service Card		TDK	9
Write Direct to Advertiser		Koss	103	Hi-Fi Components		Cassettes	
Bozak.....	12	Stereophones		Check No. 52 on Reader Service Card		Check No. 71 on Reader Service Card	
Loudspeakers		Check No. 28 on Reader Service Card		Recording Institute of America	57	TEAC.....	6,7
Write Direct to Advertiser		Lafayette Radio.....	32	Cassette Library		Reel to Reel Tape Recorders	
Braun	87	Free Electronics Catalog		Check No. 53 on Reader Service Card		Write Direct to Advertiser	
Speaker Systems		Check No. 30 on Reader Service Card		Rectilinear.....	101	Toyo	34
Write Direct to Advertiser		Lee West	124	Speakers		Peak Level Meter	
British Industries.....	3	Music Chair		Check No. 54 on Reader Service Card		Check No. 50 on Reader Service Card	
Hi-Fi Components		Check No. 31 on Reader Service Card		Revox Corp.	69,113	Tracker	116
Check No. 13 on Reader Service Card		Mark Levinson.....	45	Tape Recorders & Microphones		Hi-Fi Components	
BSR	57	Hi-Fi Components		Write Direct to Advertiser		Check No. 72 on Reader Service Card	
Turntables		Write Direct to Advertiser		Record Cleaning Device		United Audio.....	108,109
Check No. 14 on Reader Service Card		Lissen.....	116	Check No. 73 on Reader Service Card		Turntables	
Capital Magnetic Products	28	Hi-Fi Components		Rhoades	134	Write Direct to Advertiser	
Recording Tapes		Check No. 32 on Reader Service Card		Teledapter		Warehouse Sound.....	131
Check No. 15 on Reader Service Card		Lux Audio	43	Write Direct to Advertiser		Hi-Fi Catalog	
C/M Laboratories.....	121	Amplifiers and Tuners		Rocelco Inc.	89	Write Direct to Advertiser	
Hi-Fi Components		Check No. 34 on Reader Service Card		Speakers		Yamaha Audio.....	23
Check No. 16 on Reader Service Card		3M Company.....	27	Check No. 58 on Reader Service Card		HiFi Components	
Crown International.....	39	Hi-Fi Components		SAE	4	Check No. 74 on Reader Service Card	
Hi-Fi Components		Check No. 35 on Reader Service Card		Amplifier			
Check No. 17 on Reader Service Card				Check No. 59 on Reader Service Card			

USE THESE FREE REPLY CARDS FOR:

More facts and free literature about the products described and advertised in this issue. Check the appropriate box for immediate results.

Please fill out the name and address information to get product info, order literature.

We would like to know about you: what your interests are? what you want to read about? This assures you of interesting, helpful articles—geared to your needs.

Want to buy, trade or sell components? Want to offer or buy a service? Want a job in the audio field? Then your classified ad belongs in AUDIO! Rates are low—results high. Just fill out the handy, postage-free card.

Just \$7.00 For One Year!

Subscribe to AUDIO. Start reading the most exciting magazine for audio enthusiasts. If you already subscribe, here's a chance to renew your subscription before it runs out!

READER INQUIRY CARD

October, 1975 This card expires December 31, 1975

CHECK BOX A or B beside each coupon number

A to help me make an immediate decision to purchase

B to explore a new method or to keep my files on the subject to date.

#	A	B	#	A	B	#	A	B	#	A	B	#	A	B	#	A	B	#	A	B	#	A	B	#	A	B
1		16		31		46		61		76		91		106		121										
2		17		32		47		62		77		92		107		122										
3		18		33		48		63		78		93		108		123										
4		19		34		49		64		79		94		109		124										
5		20		35		50		65		80		95		110		125										
6		21		36		51		66		81		96		111		126										
7		22		37		52		67		82		97		112		127										
8		23		38		53		68		83		98		113		128										
9		24		39		54		69		84		99		114		129										
10		25		40		55		70		85		100		115		130										
11		26		41		56		71		86		101		116		131										
12		27		42		57		72		87		102		117		132										
13		28		43		58		73		88		103		118		133										
14		29		44		59		74		89		104		119		134										
15		30		45		60		75		90		105		120		135										

Name _____

Address _____

City _____ State _____ Zip _____

Phone number (_____) _____

Are you a subscriber to AUDIO Magazine? ☐ Yes ☐ No

READER INTEREST INFORMATION:

- 1 ☐ High Fidelity Enthusiast
2 ☐ Home Recordist
3 ☐ Professional Recordist
4 ☐ Broadcast Engineer/Manager
5 ☐ Audio Service Technician
6 ☐ Audio Manufacturer or Dealer
7 ☐ Other _____

I would like to see more ☐ Technical articles ☐ Articles for beginners
☐ Construction projects ☐ Articles on music
☐ Music reviews ☐ Classical ☐ Jazz ☐ Rock
☐ Other _____

I buy an average of _____ records a year Age _____

I have purchased the following equipment after seeing it advertised in AUDIO Magazine _____

I am planning to purchase the following equipment in the next year _____

Comments _____

SUBSCRIBE

Don't wait until your subscription runs out. Renew now and insure uninterrupted service. The remaining issues on your current subscription will be added. Postage will be paid.

Gentlemen: Please enter my subscription to AUDIO.

Name _____

Address _____

City _____ State _____ Zip _____

- ☐ New Subscription ☐ Payment Enclosed
☐ Renewal ☐ Bill me

- ☐ 3 Years—\$17 ☐ 2 Years—\$12 ☐ 1 Year—\$7
☐ (Foreign—\$23) ☐ (Foreign—\$16) ☐ (Foreign—\$9)

You may pay for your subscription on your credit card.

Credit Card No. _____ ☐ American Express
☐ Diners Club

Card expires _____ ☐ Master Charge
Bank No. _____

Signature _____

Advertising Index

ADVERTISER	PAGE	ADVERTISER	PAGE	ADVERTISER	PAGE	ADVERTISER	PAGE
Ace Audio Co.	133	Dayton Wright Associates.....	99	Magnavox.....	19	Sansui.....	49
Equalizers and Preamps		Speakers		Stereo Receivers		Stereo Receivers	
Check No. 1 on Reader Service Card		Check No. 18 on Reader Service Card		Check No. 36 on Reader Service Card		Check No. 60 on Reader Service Card	
Acoustic Research Inc.	79	Discount Music Club.....	136	Maxell Corp.	16	Saxitone.....	135
Loudspeakers		Samples		Cassettes		Magnetic Tape	
Check No. 2 on Reader Service Card		Write Direct to Advertiser		Check No. 37 on Reader Service Card		Write Direct to Advertiser	
Acoustical Engineering124		Discwasher.....	2	McIntosh.....	113	Schwann.....	133
Speaker Systems		Recording Cleaning Devices		Free Catalog		Record & Tape Guide	
Check No. 3 on Reader Service Card		Write Direct to Advertiser		Check No. 38 on Reader Service Card		Write Direct to Advertiser	
Aires.....	116	Dolby Laboratories.....	11	McKay Dymek.....	14	Scott.....	123
Hi-Fi Components		Broadcast Encoder		Hi-Fi Components		Hi-Fi Components	
Check No. 4 on Reader Service Card		Write Direct to Advertiser		Check No. 39 on Reader Service Card		Check No. 76 on Reader Service Card	
AKAI.....	17	Dynaco.....	15	Nakamichi.....	73	Sennheiser.....	8
Stereo Tape Decks		Hi-Fi Components		Cassette Systems		Speakers	
Write Direct to Advertiser		Write Direct to Advertiser		Check No. 40 on Reader Service Card		Check No. 61 on Reader Service Card	
Astatic.....	33	Elpa Marketing.....	59	Onkyo.....	20	Shure.....	13
Hi-Fi Components		Turntables		Receivers, Amplifiers & Speakers		Cartridges	
Check No. 5 on Reader Service Card		Write Direct to Advertiser		Check No. 41 on Reader Service Card		Check No. 62 on Reader Service Card	
Audio Amateur.....	124	Empire Scientific Corp.	61	Ortofon.....	21	Sonic Research.....	67
Constructors Publication		Cartridges		Hi-Fi Components		Stereo Phono Cartridge	
Check No. 6 on Reader Service Card		Check No. 19 on Reader Service Card		Check No. 42 on Reader Service Card		Check No. 64 on Reader Service Card	
Audio Analyst.....	122	ESS.....	5	OTARI.....	71	Sony.....	25
Hi-Fi Components		Hi-Fi Components		Tape Decks		Hi-Fi Components	
Check No. 7 on Reader Service Card		Write Direct to Advertiser		Check No. 44 on Reader Service Card		Check No. 65 on Reader Service Card	
Audio Dynamics Corp.	65	Fidelitone.....	18	PAIA.....	125	Soundcraftsmen.....	119
Cartridges		Recordwasher		Synthesizer Kits		Preamps	
Write Direct to Advertiser		Check No. 21 on Reader Service Card		Check No. 45 on Reader Service Card		Check No. 66 on Reader Service Card	
Audio Technica.....	114	Fuji.....	35	Panasonic.....	cover IV	Speakerlab.....	125
Cartridges		Hi-Fi Components		Cassette Decks		Speaker Kits	
Check No. 8 on Reader Service Card		Check No. 22 on Reader Service Card		Check No. 46 on Reader Service Card		Check No. 67 on Reader Service Card	
Auratone.....	137	Great American Sound.....	114	Phase Linear.....	10	Stax.....	47
Speakers		Servo-Loop Preamplifier		Hi-Fi Components		Amplifiers, Preamps, & Headphones	
Write Direct to Advertiser		Check No. 23 on Reader Service Card		Check No. 47 on Reader Service Card		Check No. 68 on Reader Service Card	
Avid Corporation.....	81	GTE Sylvania.....	55	Pickering.....	63	STR.....	118
Speakers		Stereo Receiver		Cartridges		Hi-Fi Components	
Check No. 9 on Reader Service Card		Check No. 24 on Reader Service Card		Check No. 48 on Reader Service Card		Check No. 69 on Reader Service Card	
BGW Systems.....	30,111	Hartley Products.....	120	Pioneer.....	cover II, 1	Superscope.....	cover III
Preamps		Speaker		Cassette Deck		Tape Deck	
Check No. 10 on Reader Service Card		Check No. 55 on Reader Service Card		Check No. 49 on Reader Service Card		Write Direct to Advertiser	
Hi-Fi Components		Jennings Research.....	31	Polk Audio.....	123	Tandberg.....	115,122
Check No. 11 on Reader Service Card		Loudspeakers		Hi-Fi Components		Stereo Cassette Deck	
BML.....	117	Check No. 25 on Reader Service Card		Write Direct to Advertiser		Write Direct to Advertiser	
Speakers		Jensen Sound Labs.....	112	Primo Co.	125	Hi-Fi Components	
Check No. 12 on Reader Service Card		Speakers		Microphones		Write Direct to Advertiser	
Bose Corporation.....	83,85	Check No. 26 on Reader Service Card		Check No. 51 on Reader Service Card		Radio Shack.....	115,118
Hi-Fi Components		Kenwood.....	29	Free Catalog		Free Catalog	
Write Direct to Advertiser		Speakers, Turntables, Amplifiers & Receivers		Check No. 77 on Reader Service Card		Hi-Fi Components	
Hi-Fi Components		Check No. 27 on Reader Service Card		Check No. 52 on Reader Service Card		Check No. 71 on Reader Service Card	
Write Direct to Advertiser		Koss.....	103	Recording Institute of America.....	57	TEAC.....	6,7
Bozak.....	12	Stereophones		Cassette Library		Reel to Reel Tape Recorders	
Loudspeakers		Check No. 28 on Reader Service Card		Check No. 53 on Reader Service Card		Write Direct to Advertiser	
Write Direct to Advertiser		Lafayette Radio.....	32	Rectilinear.....	101	Toyo.....	34
Braun.....	87	Free Electronics Catalog		Speakers		Peak Level Meter	
Speaker Systems		Check No. 30 on Reader Service Card		Check No. 54 on Reader Service Card		Check No. 50 on Reader Service Card	
Write Direct to Advertiser		Lee West.....	124	Revox Corp.	69,113	Tracker.....	116
British Industries.....	3	Music Chair		Tape Recorders & Microphones		Hi-Fi Components	
Hi-Fi Components		Check No. 31 on Reader Service Card		Write Direct to Advertiser		Check No. 72 on Reader Service Card	
Check No. 13 on Reader Service Card		Mark Levinson.....	45	Record Cleaning Device		United Audio.....	108,109
BSR.....	57	Hi-Fi Components		Check No. 73 on Reader Service Card		Turntables	
Turntables		Write Direct to Advertiser		Rhoades.....	134	Write Direct to Advertiser	
Check No. 14 on Reader Service Card		Lissen.....	116	Teledapter		Warehouse Sound.....	131
Capital Magnetic Products28		Hi-Fi Components		Write Direct to Advertiser		Hi-Fi Catalog	
Recording Tapes		Check No. 32 on Reader Service Card		Rocelco Inc.	89	Write Direct to Advertiser	
Check No. 15 on Reader Service Card		Lux Audio.....	43	Speakers		Yamaha Audio.....	23
C/M Laboratories.....	121	Amplifiers and Tuners		Check No. 58 on Reader Service Card		Hi-Fi Components	
Hi-Fi Components		Check No. 34 on Reader Service Card		SAE.....	4	Check No. 74 on Reader Service Card	
Check No. 16 on Reader Service Card		3M Company.....	27	Amplifier			
Crown International.....	39	Hi-Fi Components		Check No. 59 on Reader Service Card			
Hi-Fi Components		Check No. 35 on Reader Service Card					
Check No. 17 on Reader Service Card							

Name	
Address	
City	
State	Zip

FOR AUDIO PERFECTIONISTS



The Perfect Book on Audio Developments... Audio's Hi Fi Handbook

This complete reference guide is a necessity to those who want to know about the latest hi fi, stereo, and quad equipment. It's all here. Specifications on over 1,100 components are arranged in tabular form. So you can quickly and easily check performance, evaluate and compare the newest components. You'll find specifications on preamplifiers, amplifiers, tuners, receivers, turntables, phono cartridges, speakers, open reel tape, cassette and cartridge recorders, equalizers, headphones and microphones.

The Handbook contains over 30 outstanding articles on audio topics, trends and advances. In these articles, industry leaders and engineers help you discover new and better ways to use your equipment. And they'll keep you up with the state-of-the-art. Your understanding and enjoyment of contemporary sound reproduction will be increased by getting insights from articles like:

A Primer on Choosing Tape
New IHF Tuner Specs
Fundamentals of Loudspeaker Design
Recording in 2 and 4 Channels
Quadraphonic Progress Report
Thermal Design of a High-Power Amplifier
And many more

The Handbook is sturdily bound so you can use it and enjoy it for many years to come. In it's 200 plus pages, you'll find much information that you'll want to keep for the rest of your life. It contains too much to miss. So send for the Handbook now. Only a limited quantity is available. Make sure you get the Handbook by sending in the coupon below today.

**A LIMITED QUANTITY IS AVAILABLE!
ORDER NOW FOR YOUR COPY.**

AU5

- ☐ Send me _____ copies of the HI-FI HANDBOOK at \$3.95 each. (Price includes shipping and handling.)
I have enclosed \$_____ Payment must accompany order.
- ☐ I want monthly information about the high fidelity field. Start my subscription to AUDIO MAGAZINE.
- ☐ 3 years \$17.00 ☐ 2 years \$12.00 ☐ 1 year \$7.00

Name

Address

City State Zip

Mail to: AUDIO, 134 N. 13th St., Philadelphia, Pa. 19107

BUSINESS REPLY MAIL—No Postage Necessary if Mailed in the United States

Postage will be paid by

Audio Magazine
P.O. Box 13892
Philadelphia, Pa. 19101

FIRST CLASS
Permit No. 22,489
Philadelphia, Pa.

BUSINESS REPLY MAIL
No Postage Necessary if Mailed in the United States

POSTAGE WILL BE PAID BY:

AUDIO
134 North Thirteenth St.
Philadelphia, Pa. 19107

FIRST CLASS
Permit No. 22,489
Philadelphia, Pa.

READER INQUIRY CARD

Fill in other side to get more information on advertised products

SUBSCRIPTION ORDER CARD Fill in other side to order a new subscription

MANUFACTURER	MODEL	Enclosure type	Woofer dia., in.	Woofer response (in system)	Midrange dia., in.	Midrange type	Tweeter dia., in.	Tweeter type	Level controls (M-Mid, T-tweeter)	Anechoic freq. response, Hz-kHz, \pm 3 dB	Sens. for 1 W input, 100 Hz, 10 k Hz	Power-handling capability, continuous watts	Crossover frequencies, Hz	Impedance, nominal	Dimensions, inches	Wood finish	Grille material, color	Weight, lbs.	Price, \$	NOTES
KLEIN & HUMMEL (GOTHAM)	OY	ac.sus.	10	20	4	cone		horn	M,T*	40-16 \pm 2		500, 8k	4 7 8	19x9 x12	Wal.	Metal silver	44	912.00		Includes built-in amplifiers and electronic crossovers. *Also level control for woofer.
KLH	5	ac.sus.	12	44		(2) 3	cone	1 1/4	cone			25	600, 2.5k	26x11 1/2 x12 1/2				54	225.00	
	6	ac.sus.	12	55				1 1/4	cone			15	1.5k	23 1/2 x 12 x12 1/2				40	149.95	
	6V	ac.sus.	12	55				1 1/4	cone			15	1.5k	23 1/2 x 12 x12 1/2				40	129.95	
	17	ac.sus.	10	60				1 1/4	cone			10	1.5k	23 1/2 x 9 x11 1/4				27	89.95	
	32	ac.sus.	8	59				1 7/16	cone			12	1.8k	19 1/2 x 7 1/2 x11				21	125.00	
	31	ac.sus.	8	60				1 1/4	cone			12	1.8k	17 1/2 x 8 1/2 x11				27	99.95 pair	
	28	ac.sus.	3 (10)	36				(3) 1 1/4	cone			30	1.5k	18x16 x25 1/2					299.95 pair	
	33	ac.sus.	10	54				1 1/4	cone			12	1.5k	23 1/2 x 10 1/2 x12				33	110.00	
38	ac.sus.	10	50				1 1/16	cone			12	1.75k	12x8 1/2 x21 1/2				28	149.95 pair		
KLH RESEARCH TEN DIV.	SCX-3	ac.sus.	12	30	5	cone	1x6		M,T	91		500 4K	8	15x38 x13 1/2	Wal.	Cloth, brn.	60	399.00		
	SCX-2	ac.sus.	12	30	5	cone	1x4		M,T	91		500 4K	8	21x27 x14	Wal.	Cloth, brn.	60	299.00		
	CL-4	ac.sus.	10		4 1/2	cone	1	dome	M,T	30-22 \pm 3	100	500 5K	8	26 1/2 x 14 1/2 x12 1/2	Wal.	Cloth, brn.	59	189.00		
	CL-3	ac.sus.	10		2 1/2	cone	2	cone	T	35-20 \pm 3	100	1500 10K	8	25 7/8 x 13 7/8 x11 1/8	Wal.	Cloth, brn.	53	140.00		
	CB-10	ac.sus.	10				2 1/2	cone	T	40-18 \pm 4	100	1700	8	19 1/2 x 14 1/2 x7 1/2	Oak	Cloth, brn.	35	110.00		
	CB-8	ac.sus.	8				2 1/2	cone	T	47-18 \pm 4	70	1700	8	19 1/2 x 11 7/8	Oak	Cloth, brn.	27	85.00		
KLIPSCH	Klipschorn	fold. horn	15			horn				35-18 \pm 4	105	50*	400, 6k	8	31 1/2 x 52 x28 1/2	**	Choice 4	180-240	1040.00	*350 instan. peak power; **various finishes affect price. **As above.
	La Scala	fold. horn	15			horn				45-18 \pm 4	105		400, 6k	8	23 1/2 x 35 1/2 x24 1/2	**	Choice, 3	110	525.00	
	Belle Klipsch	fold. horn	15			horn				45-18 \pm 4	105		400, 6k	8	30 1/2 x 35 1/2 x18	**	Choice, 4	125	840.00	**As above.
	Cornwall	horn port	15			horn				35-18 \pm 4	99	25*	600, 6k	8	25 1/2 x 35 1/2 x15 1/2	**	Choice, 2	108	525.00	*150 instan. peak power; **various finishes affect price. **100 instan. peak power; **various finishes affect price.
	Heresy	box	12			horn				50-18 \pm 5	97	20*	700, 6k	8	15 1/2 x 21 1/2 x13 1/2	**	Choice 2	55	297.00	
LAFAYETTE	Criterion 2005	port	10	35	—			Heil	M,T	30-24	92	50	1500	8	12 1/2 x 40 x13 1/2	Wal.	Cloth, blk.	58	199.95	
	Criterion 2002	port	12	20	(2) 6	horn	1 1/4	cone	M,T	20-20 \pm 5	90	2k, 4k	8	26x16 x15	Wal.	Cloth, brn.	45	149.95		
	Criterion 2001	port	10	23	(2) 6	horn	1 1/4	cone	M,T	30-18 \pm 5	70	2k, 4k	8	25x13 1/2 x13 1/2	Wal.	Cloth, brn.	35	99.95		
	Criterion 777	ac.sus.	10	25	6	cone	1 1/4	ring	M,T	26-20 \pm 5	93	800, 4k	8	23x12 x15	Wal.	Foam, brn.	36	139.95		
	Criterion L-6	ac.sus.	10		5	cone	2 1/4	cone	M,T	30-22 \pm 3	30	2200, 6k	8	22 1/2 x 13 x11	Wal.	Foam, brn.	30	79.95		
LEAK (ERCONA)	2030	port	8	40	4	cone	1	dome		40-20 \pm 2	35	700, 3500	6	19 1/2 x 11 x10 1/2	Wal.	Cloth	24.5	195.00		
	2020	ac.sus.	7	45			2	cone		45-20 \pm 3	25	3500	6	15 1/2 x 9 1/2 x9 1/2	Wal.	Cloth	15	135.00		
	2060	ac.sus.	12	35	4	cone	1	dome		35-20 \pm 2	50	600, 3.5	6	25 1/2 x 15 x13	Wal.	Cloth	51	325.00		
	2075	port	15	35	7, 4	cone	1	dome		35-20 \pm 2	100	450, 2k, 5k	6	47x19 1/2 x14 1/2	Wal.	Cloth	112	875.00		
LESLIE	DVX570	port	15	28	8,3	cones	(2) 1	dome	(2) M,T	45-20 \pm 2 1/2	90	50	250, 1.5k, 5k	4	30x33 1/2 x19 1/2	Wal.	Cloth, var.	105	449.00	variable-axis dipole.
	DVX580	port	15	28	8,3	cones	(2) 1	dome	(2) M,T	45-20 \pm 2 1/2	90	50	250, 1.5k, 5k	4	29x33 x20 1/2	Wal.	Cloth, var.	98	473.00	variable-axis dipole.
	Plus 2 430	port	15	55	—	—		horn	T				800	*	25x29 1/2 x18 1/2	Wal.	Cloth, var.	*	695.00 pair	*Inc. built-in amps, input z, 10 kohms. For use with 2nd set of speakers, typically DVX 570. *As above
	Plus 2 470	port	15	55	(2) 6x9	cones	1	dome	M,T				800, 4k	*	30x33 1/2 x19 1/2	Wal.	Cloth, var.	*	995.00 pair	
LINEAR SOUND	300	ac.sus.	12		5	cone	2 1/4			35-20 \pm 3.5	450*		4/4	27x16 x14	Wal.			269.00		*Handles musical peaks up to 450 watts.
	200	ac.sus.	12			1		dome		35-18 \pm 3.5	200*	1500	4/4	27x16 x14	Wal.			189.00		*Handles musical peaks up to 200 watts.

FOR AUDIO PERFECTIONISTS



The Perfect Book on Audio Developments...

Audio's Hi Fi Handbook

This complete reference guide is a necessity to those who want to know about the latest hi fi, stereo, and quad equipment. It's all here. Specifications on over 1,100 components are arranged in tabular form. So you can quickly and easily check performance, evaluate and compare the newest components. You'll find specifications on preamplifiers, amplifiers, tuners, receivers, turntables, phono cartridges, speakers, open reel tape, cassette and cartridge recorders, equalizers, headphones and microphones.

The Handbook contains over 30 outstanding articles on audio topics, trends and advances. In these articles, industry leaders and engineers help you discover new and better ways to use your equipment. And they'll keep you up with the state-of-the-art. Your understanding and enjoyment of contemporary sound reproduction will be increased by getting insights from articles like:

A Primer on Choosing Tape
New IHF Tuner Specs
Fundamentals of Loudspeaker Design
Recording in 2 and 4 Channels
Quadraphonic Progress Report
Thermal Design of a High-Power Amplifier
And many more

The Handbook is sturdily bound so you can use it and enjoy it for many years to come. In it's 200 plus pages, you'll find much information that you'll want to keep for the rest of your life. It contains too much to miss. So send for the Handbook now. Only a limited quantity is available. Make sure you get the Handbook by sending in the coupon below today.

A LIMITED QUANTITY IS AVAILABLE! ORDER NOW FOR YOUR COPY.

AU5

- ☐ Send me _____ copies of the HI-FI HANDBOOK at \$3.95 each. (Price includes shipping and handling.)
I have enclosed \$_____ Payment must accompany order.
- ☐ I want monthly information about the high fidelity field. Start my subscription to AUDIO MAGAZINE.
- ☐ 3 years \$17.00 ☐ 2 years \$12.00 ☐ 1 year \$7.00

Name

Address

City State Zip

Mail to: **AUDIO, 134 N. 13th St., Philadelphia, Pa. 19107**

BUSINESS REPLY MAIL
No Postage Necessary if Mailed in the United States
POSTAGE WILL BE PAID BY:

FIRST CLASS
Permit No. 22,489
Philadelphia, Pa.

AUDIO

134 North Thirteenth St.
Philadelphia, Pa. 19107

MANUFACTURER	MODEL	Enclosure type	Woofer dia., in.	Woofer resonance (in system)	Midrange dia., in.	Midrange type	Tweeter dia., in.	Tweeter type	Level control(s)	M=Mid, T=tweeter	Anechoic freq. response, Hz-MHz, ± 2 dB	Sens. for 1 W, 1 mtr, dB SPL, 1 mtr. on-axis, 100 Hz-10 kHz	Power-handling capability, continuous watts	Crossover frequencies, Hz.	Impedance, nominal	Dimensions, inches	Wood finish	Grille material, color	Weight, lbs.	Price, \$	NOTES
KLEIN & HUMMEL (GOTHAM)	OY	ac.sus.	10	20	4	cone		horn	M,T*		40-16 + 2		500, 8k	4 7 8	19x9 x12	Wal.	Metal silver		44	912.00	Includes built-in amplifiers and electronic crossovers. *Also level control for woofer.
KLH	5	ac.sus.	12	44		(2) 3	cone	1 1/4	cone			25	600, 2.5k	26x11 1/2 x12 1/2				54	225.00		
	6	ac.sus.	12	55				1 1/4	cone			15	1.5k	23 1/2 x12 x12 1/2				40	149.95		
	6V	ac.sus.	12	55				1 1/4	cone			15	1.5k	23 1/2 x12 x12 1/2				40	129.95		
	17	ac.sus.	10	60				1 1/4	cone			10	1.5k	23 1/2 x9 x11 1/2				27	89.95		
	32	ac.sus.	8	59				1 1/4	cone			12	1.8k	19 1/2 x7 1/2 x11				21	125.00		
	31	ac.sus.	8	60				1 1/4	cone			12	1.8k	17 1/2 x8 1/2 x11				22	99.95 pair		
	28	ac.sus.	3 (10)	36			(3) 1 1/4	cone			30	1.5k	18x16 x25 1/2					299.95 pair			
	33	ac.sus.	10	54			1 1/4	cone			12	1.5k	23 1/2 x10 1/2 x12 1/2				33	110.00			
38	ac.sus.	10	50				1 1/4	cone			12	1.75k	12x8 1/2 x21 1/2				28	149.95 pair			
KLH RESEARCH TEN DIV.	SCX-3	ac.sus.	12	30	5	cone	1x6		M,T		91		500 4k	8	15x38 x13 1/2	Wal.	Cloth, brn.	60	399.00		
	SCX-2	ac.sus.	12	30	5	cone	1x4		M,T		91		500 4k	8	21x27 x14	Wal.	Cloth, brn.	60	299.00		
	CL-4	ac.sus.	10		4 1/2	cone	1	dome	M,T		30-22 + 3	100	500 5k	8	26 1/2 x14 1/2 x12 1/2	Wal.	Cloth, brn.	59	189.00		
	CL-3	ac.sus.	10		2 1/2	cone	2	cone	T		35-20 + 3	100	1500 10k	8	25 1/2 x13 1/2 x11 1/2	Wal.	Cloth, brn.	53	140.00		
	CB-10	ac.sus.	10				2 1/2	cone	T		40-18 + 4	100	1700	8	19 1/2 x14 1/2 x7 1/2	Oak	Cloth, brn.	35	110.00		
	CB-8	ac.sus.	8				2 1/2	cone	T		47-18 + 4	70	1700	8	19 1/2 x11 1/2 x7 1/2	Oak	Cloth, brn.	27	85.00		
KLIPSCH	Klipschorn	fold. horn	15				horn				35-18 + 4	105	50*	400, 6k	8	31 1/2 x52 x28 1/2	**	Choice 4	180-240	1040.00	*350 instan. peak power; **various finishes affect price. **As above.
	La Scala	fold. horn	15				horn				45-18 + 4	105		400, 6k	8	23 1/2 x35 1/2 x24 1/2	**	Choice, 3	110	525.00	
	Belle Klipsch	fold. horn	15				horn				45-18 + 4	105		400, 6k	8	30 1/2 x35 1/2 x18	**	Choice, 4	125	840.00	
	Cornwall	horn port	15				horn				35-18 + 4	99	25*	600, 6k	8	25 1/2 x35 1/2 x15 1/2	**	Choice, 2	108	525.00	
	Heresy	box	12				horn				50-18 + 5	97	20*	700, 6k	8	15 1/2 x21 1/2 x13 1/2	**	Choice 2	55	297.00	
LAFAYETTE	Criterion 2005	port	10	35	—	—		Heil	M,T		30-24	92	50	1500	8	12 1/2 x40 x13 1/2	Wal.	Cloth, blk.	58	199.95	
	Criterion 2002	port	12	20	(2) 6	horn	1 1/4	cone	M,T		20-20 + 5	90	2k,4k	8	26x16 x15	Wal.	Cloth, brn.	45	149.95		
	Criterion 2001	port	10	23	(2) 6	horn	1 1/4	cone	M,T		30-18 + 5	70	2k,4k	8	25x13 1/2 x13 1/2	Wal.	Cloth, brn.	35	99.95		
	Criterion 777	ac.sus.	10	25	6	cone	1 1/4	ring	M,T		26-20 + 5	93	80	800, 4k	8	23x12 x15	Wal.	Foam, brn.	36	139.95	
	Criterion L-6	ac.sus.	10		5	cone	2 1/4	cone	M,T		30-22 + 3	30	2200, 6k	8	22 1/2 x13 x11	Wal.	Foam, brn.	30	79.95		
LEAK (ERCONA)	2030	port	8	40	4	cone	1	dome			40-20 + 2	35	700, 3500	6	19 1/2 x11 10 1/2	Wal.	Cloth	24.5	195.00		
	2020	ac.sus.	7	45			2	cone			45-20 + 3	25	3500	6	15 1/2 x9 1/2 x9 1/2	Wal.	Cloth	15	135.00		
	2060	ac.sus.	12	35	4	cone	1	dome			35-20 + 2	50	600, 3.5	6	25 1/2 x15 x13	Wal.	Cloth	51	325.00		
	2075	port	15	35	7, 4	cone	1	dome			35-20 + 2	100	450, 2k,5k	6	47x19 1/2 x14 1/2	Wal.	Cloth	112	875.00		
LESLIE	DVX570	port	15	28	8,3	cones	(2) 1	dome	(2) M,T		45-20 + 2 1/2	90	50	250, 1.5k, 5k	4	30x33 1/2 x19 1/2	Wal.	Cloth, var.	105	449.00	variable-axis dipole.
	DVX580	port	15	28	8,3	cones	(2) 1	dome	(2) M,T		45-20 + 2 1/2	90	50	250, 1.5k, 5k	4	29x33 x20 1/2	Wal.	Cloth, var.	98	473.00	variable-axis dipole.
	Plus 2 430	port	15	55	—	—		horn	T				800	*	25x29 1/2 x18 1/2	Wal.	Cloth, var.	*	695.00 pair	*Inc. built-in amps, input z, 10 kohms. For use with 2nd set of speakers, typically DVX 570. *As above	
	Plus 2 470	port	15	55	(2) 6x9	cones	1	dome	M,T				800, 4k	*	30x33 1/2 x19 1/2	Wal.	Cloth, var.	*	995.00 pair		
LINEAR SOUND	300	ac.sus.	12		5	cone	2 1/4				35-20 + 3.5	450*		4/4	27x16 x14	Wal.			269.00	*Handles musical peaks up to 450 watts.	
	200	ac.sus.	12			1		dome			35-18 + 3.5	200*	1500	4/4	27x16 x14	Wal.			189.00	*Handles musical peaks up to 200 watts.	

Speakers

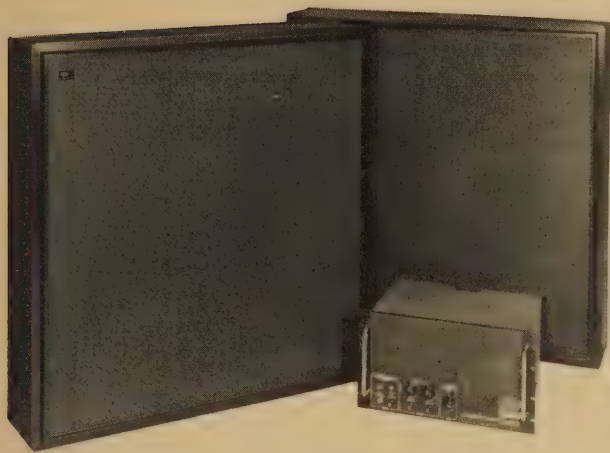
MANUFACTURER	MODEL	Enclosure type																					NOTES
			Woofer dia., in.	Woofer resonance (in system)	Midrange dia., in.	Midrange type	Tweeter dia., in.	Tweeter type	Level control(s) M=Mid, T=tweeter	Anechoic freq. response Hz-kHz, \pm dB	Sens. for 1 W input, dB SPL, 1 mtr. on-ax, 100 Hz-10 kHz	Power-handling capability continuous watts	Crossover frequencies, Hz	Impedance, nominal	Dimensions, inches	Wood finish	Grille material, color	Weight, lbs.	Price, \$				
MAGITRAN	DS60	sound panel	(2) 9x12	48	(2) 8	poly-planar		dome		40-20 \pm 5	90	28		8	23x29 $\frac{1}{2}$ x2	Wal.	*	13	89.95	*Grille cloth; 13 replaceable designs			
MAGNEPAN	MG-II	Bipolar	9 $\frac{1}{2}$ x 57				1 $\frac{1}{2}$ x 57	vert. strip		50-18 \pm 4	85	200	2400	6	22x71 x2	Oak	Cloth, wht, blk.	40	625.00	Single panel. Self-supporting, full-range magneplanar-type.			
MAGNUM OPUS	Lab 800		10		5			dome		25-45		100	75,3k, 4k 3k	4/8	28x15 x13 $\frac{1}{2}$	Wal.	Cloth, blk.	68	429.00				
	DBtion 500		10					ring		35-22				8		Wal.	Cloth, blk.	42	78.00				
	Opus 1		10					dome		35-20		50	2k	8	24x14 $\frac{1}{2}$ x11	Wal.	Cloth, blk.	42	139.95				
	Lab 8		10		5			Pz	T	25-45		100	750, 3k, 4k 2k	4	28x15 x13 $\frac{1}{2}$	Wal.	Cloth, blk.	65	359.00				
	Opus 200		10					dome	T	28-20		100		4	24x14 $\frac{1}{2}$ x11	Wal.	Cloth, blk.	42	179.95				
	Lab Monitor		10		5			Pz	T	26-45		150	500, 2k, 4k 750, 3k, 4k	8	15 $\frac{1}{2}$ x28 x13 $\frac{1}{2}$	Wal.	Cloth, blk.	70	459.00				
	Lab 2400		12		5			Pz	T	20-45		200		4/8	32x36 x18 $\frac{1}{2}$	Wal.	Cloth, blk.	180	1450.00				
MARANTZ	HD88	ac.sus.	12	40	4 $\frac{1}{2}$	cone	1 $\frac{1}{2}$	dome	**	25-25 \pm 3	90	300*	500, 3k, 8k	8	16x41 $\frac{1}{2}$ x12	Wal.	Foam, bn.		399.95	*Pgm. material.			
	HD77	ac.sus.	12	45	4 $\frac{1}{2}$	cone	1 $\frac{1}{2}$	dome	**	30-23 \pm 3	90	250*	500, 3k, 8k	8	14 $\frac{1}{2}$ x25 $\frac{1}{2}$ x12 $\frac{1}{2}$	Wal.	Foam, bn.		259.95	**M, T, super-tweeter.			
	HD66	ac.sus.	10	55	4 $\frac{1}{2}$	cone	1 $\frac{1}{2}$	dome	M, T,	35-20 \pm 3	88	150*	1k, 4k	8	14 $\frac{1}{2}$ x24 $\frac{1}{2}$ x11	Wal.	Foam, bn.		179.95	* **As above.			
	HD55	ac.sus.	8	55	4 $\frac{1}{2}$	cone	1 $\frac{1}{2}$	dome	M, T,	40-20 \pm 3	88	100*	1.2k, 4k	8	12x23 x9 $\frac{1}{2}$	Wal.	Foam, bn.		129.95	* **As above.			
	HD44	ac.sus.	8	70	3	cone	3	cone		45-18 \pm 3	87	60*	2k, 8k	8	11 $\frac{1}{2}$ x19 x8 $\frac{1}{2}$	Wal. vynl.	Foam, bn.		89.95	* **As above.			
	Imperial 9	port	(2) 10		4	cone	(2) 1 $\frac{1}{2}$	cone	M, T	30-18 \pm 3	97	150*	600, 3100	8	24x30 $\frac{1}{2}$ x18	Wal.	Foam, bn.	120	499.95	* **As above.			
	Imperial 8	port	12		3 $\frac{1}{2}$	cone	(2) 1 $\frac{1}{2}$	cone	M, T	30-20 \pm 5	97	125*		8	18 $\frac{1}{2}$ x27 x14 $\frac{1}{2}$	Wal.	Foam, bn.	75	319.95	* **As above.			
	Imperial 7	port	12		3 $\frac{1}{2}$	cone	1 $\frac{1}{2}$	cone	M, T	35-20 \pm 5	96	100*		8	14 $\frac{1}{2}$ x25 $\frac{1}{2}$ x11 $\frac{1}{2}$	Wal.	Foam, bn.	45	199.95	* **As above.			
	Imperial 4	ac.sus.	8			cone	1 $\frac{1}{2}$	cone		40-18 \pm 5	95	40*		8	11 $\frac{1}{2}$ x19 x8 $\frac{1}{2}$	Wal.	Foam, bn.	20	59.95	* **As above.			
MARTIN	Micro Max	ac.sus.	8	57			1 $\frac{1}{2}$	dome	T	42-18	96	45*	2000	8	18x11 x10	Wal.	Cloth, brn.	28	79.00	*Music			
	Super Max	ac.sus.	10	50			1 $\frac{1}{2}$	dome	T	38-18	94	50*	1200	8	22x13 x10	Wal.	Cloth, brn.	31	119.00	*Music			
	Lab Mk II	ac.sus.	10	50	5	cone	1	horn	M, T	38-18	92	50*	900, 4000	8	22x13 x10	Wal.	Cloth, brn.	31	149.00	*Music			
	Crescendo	ac.sus.	12	48	5	cone	(2) 1	horn	M, T	34-20	96	60*	800, 4000	8	26x15 x12	Wal.	Cloth, brn.	45	219.00	*Music			
	Krypton	ac.sus.	8, 12	44	5	cone	(2) 1	horn	M, T	34-20	95	60*	800, 4000	4	26x15 x12	Wal.	Cloth, brn.	48	299.00	*Music			
	Exorcist	ac.sus.	15	36	5	cone	(4) 1	horn	M, T	28-20	95	75*	700, 4000	8	38x18 x15	Wal.	Cloth, brn.	65	339.00	*Music			
MAXIMUS (Audimax)	80	ac.sus.	8	59			3	cone		45-20 \pm 4	94	15	2500	8	22x12 $\frac{1}{2}$ x8 $\frac{1}{2}$	Wal.	Cloth, brn.	18	89.95				
	100	ac.sus.	10	46			3	cone		30-20 \pm 4	93.5	30	2000	8	24x14 x10 $\frac{1}{2}$	Wal.	Cloth, brn.	26	114.95				
	X100	ac.sus.	10	35			(2) 2	cone		35-20 \pm 4	94	50	1150	8	24x14 x10 $\frac{1}{2}$	Wal.	Cloth, brn.	26	129.95				
	120	ac.sus.	12	40	6	cone	3	cone		25-20 \pm 4	94	45	1500, 8k	8	27 $\frac{1}{2}$ x19 x12	Wal.	Cloth, brn.	45	159.95				
	150	ac.sus.	15	38	6	cone	3	cone		20-20 \pm 4	94	60	1500, 8k	8	27 $\frac{1}{2}$ x19 x12	Wal.	Cloth, brn.	49	199.95				
MX	MX2760	ac.sus.	10	55			3 $\frac{1}{2}$	cone		40-17		35	2000	8	12 $\frac{1}{2}$ x21 $\frac{1}{2}$ x12	Wal.	Foam, org.	29	75.00				
	MX2770	ac.sus.	12	55			3 $\frac{1}{2}$	cone		40-17		50	2000	8	14 $\frac{1}{2}$ x23 x12	Wal.	Foam, org.	34	100.00				
	MX2810	ac.sus.	10	47	2	dome	2	cone	M, T	30-20		50	1500, 4500	8	15 $\frac{1}{2}$ x23 $\frac{1}{2}$ x12	Wal.	Foam, blk.	35	150.00				
	MX2820	ac.sus.	12	45	2	dome	2	cone	M, T	25-20		75	1500, 4500	8	15 $\frac{1}{2}$ x25 $\frac{1}{2}$ x13 $\frac{1}{2}$	Wal.	Foam, blk.	40	200.00				
	MX2830	ac.sus.	15	43	2	dome	2	cone	M, T	20-20		100	1500, 4500	8	20 $\frac{1}{2}$ x29 x15 $\frac{1}{2}$	Wal.	Foam, blk.	55	250.00				
NAKAMICHI	Reference monitor	port	12	48	-	-	2	cone		40-16 \pm 5	96	30	1500	8	25 $\frac{1}{2}$ x34 $\frac{1}{2}$ x17 $\frac{1}{2}$	Mah.	Fiber, gray	110	2400.00 (pair)				
	Smaller monitor	port	8	51	-	-	1 $\frac{1}{2}$	cone		60-16 \pm 5	94	15	2000	16	21 x28 $\frac{1}{2}$ x13	Mah.	Fiber, gray	44	1600.00 (pair)				
OLSON	SS-251	port	10	38			3	dome	T	50-18		30	1200	8	11 $\frac{1}{2}$ x19 $\frac{1}{2}$ x9 $\frac{1}{2}$	Wal.	Cloth, brown	30	89.98				
	SS930	port	10	40			4	cone	T	40-18		30	1100	8	11 $\frac{1}{2}$ x22 $\frac{1}{2}$ x13	Wal.	Cloth, brown	30	89.98				
	SP134	Ac.sus.	*	42			(2) 2 $\frac{1}{2}$	cone	T	20-20		40	1200	8	28 $\frac{1}{2}$ x16 $\frac{1}{2}$ x10	Wal.	Cloth, brown	40	99.98	*Woofer 5 $\frac{1}{2}$ x6.			
	SS-175	Ac.sus.	12	40	5	cone	*	cone	M, T	40-20		45	1100, 3.6k	8	11 $\frac{1}{2}$ x25 $\frac{1}{2}$ x11 $\frac{1}{2}$	Wal.	Fret-work	40	119.98	*Tweeters: 2 $\frac{1}{2}$ & 1 $\frac{1}{2}$.			
	SP067	Ac.sus.	8	42			2 $\frac{1}{4}$	cone	T	60-20		35	1300	8	19 x10 x9	Wal.	Cloth, brown	20	69.98				
	SP-068	Ac.sus.	10	42	4	cone	1	dome	M, T	40-20		35	1100, 4.2k	8	24 x13 $\frac{1}{2}$ x11 $\frac{1}{2}$	Wal.	Cloth, brown	38	99.98				
	SP-069	Ac.sus.	12	40	4	cone	2 $\frac{1}{4}$	cone	M, T	25-25		35	1100, 4.2k	8	25 x14 x11 $\frac{1}{2}$	Wal.	Cloth, brown	48	129.98				

MANUFACTURER	MODEL	Enclosure type	Woofer dia., in.		Woofer resonance (in system)		Midrange dia., in.		Midrange type		Tweeter dia., in.		Tweeter type		Level controls		Anchor freq. response		Sens. for 1 W input, dB SPL, 1 mtr. on-axis, 100 Hz-10 kHz		Power handling capability, continuous watts		Crossover frequencies, Hz.		Impedance, nominal		Dimensions, inches		Wood finish		Grille material, color		Weight, lbs.		Price, \$		NOTES
ONYKO	M-30	Ac.sus	12	22	3½x10½	horn	2½	horn	M,T	20-20											700, 5k	8	16½x28½x15½	Wal.	Cloth, brown	51	299.95										
	M-25A	Ac.sus	14	19	2	dome	1	dome	M,T	30-20											700, 7k	8	14½x25½x11½	Wal.	Cloth, brown	54½	249.95										
	M-20	Ac.sus	12	28	2	dome	1	dome	M,T	35-20											700, 7k	8	13½x23½x11½	Wal.	Cloth, brown	40	199.95										
	M-12	port	10				3	cone	T	33-20											2.5k	8	13½x23½x11½	Wal.	Cloth, brown	34	129.95										
	M-8	port	8				2	cone	T	35-20											6k	8	11½x21½x9½	Wal.	Cloth, brown	16	89.95										
	R-III	port	6½				3	cone	T	60-20											1.5k	8	9½x33½x11½	Wal.	Cloth, brown	29	119.95								4 speakers.		
ORTOFON	445	port	(2) 8½			5	cone	¾	dome	M	25-40	90	100	500, 5k	8	27x15x9½	Wal.*	Black	45	330.00															*In rosewood, \$350.00		
	335	port	10			5	cone	¾	dome	M	35-40	90	50	600, 5k	8	24x13x9½	Wal.*	Black	35	199.00															*In rosewood, \$214.00		
	225	port	10					1½	cone		35-20	92	40	1800	8	21x11½x9½	Wal.*	Black	25	139.00															*In rosewood, \$149.00.		
OUR GLASS SPEAKER	Audio Lens II	Ac.sus	*					2½	pz.		22-20	95	*50		8	11½x19x10	Wal.	Foam, brown or black	20	99.95																*Two 5-in. full-range speakers. Available in low and high power capacity.	
	Audio Lens III	Ac.sus	*					2½	pz.		20-25	95	*100		8	25x15x12	Wal.	Foam, brown or black	35	189.95																*Four 5-in. full range speakers. Available in low or high power capacity.	
PHILIPS	RH532	Ac.sus	8			5	cone	1	dome			N.A.	N.A.	500, 4000		11½x15x8	Wal.	Metal, black	26	365.00																Internal br-amp w. motion feedback, 20 W tweeter, 40 watt woofer.	
PIONEER	HPM-200	Ac.sus	(2) 10	43	4½	dome		dome dome	3	25-25	89	200*	100, 700, 2k, 5k	6	32x29x19	Wal.	Cloth, brown																			*Program material.	
	CS-6DX	Ac.sus	15		(2) 5	cone	(3)	horn	M,T	20-22		80*	770, 3.3k, 12k	8	28½x13x19	Wal.	Wood, brown	63	279.95																	*Program material.	
	CS-99A	Ac.sus	15		5 4	cone cone	2½ 2½	cone horn	M,T	25-22		100*	800, 2k, 5k	8	24½x11½x16½	Wal.	Wood, lath	51½	239.95																	*Program material.	
	CS-700G	Ac.sus	12		4½	cone		horn		35-20		60*	500, 4.5k	8	26x15x12½	Wal.	Wood & cloth	37	199.95																	*Program material.	
	CS-500G	Ac.sus	10		5	cone	3	cone	M,T	35-20	94	50*	700, 8k	8	22½x12½x12½	Wal.	Wood & cloth	32½	149.95																	*Program material.	
	CS-66G	Ac.sus	10		6½	cone	3	cone		35-20	92½	40*	1k, 7k	8	21½x12½x11½	Wal.	Wood & cloth	19	119.95																	*Program material.	
	CS-44G	Ac.sus	8				2½	cone		35-20	91½	25*	3.2k	8	17½x10½x11	Wal.	Wood & cloth	19	79.95																	*Program material.	
	Project 100	Ac.sus	10				1½	dome		30-20		35*	700	8	23x10½x13	Wal.	Foam, blue	40	129.95																	*Program material.	
	Project 80	Ac.sus	10				1½	dome		35-20		30*	700	8	20½x11x11½	Wal.	Foam, brown	25	99.95																	*Program material.	
	Project 60A	port	8				1½	cone		50-20		20*	3k	8	10½x10½x9½	Wal.	Foam, blue	11½	79.95																	*Program material.	
	R-700	port	12			horn		horn		35-20		75*	700, 14k	8	14x13x26	Wal.	Cloth, brown & black	50	249.95																		*Program material.
	R-500B	port	10		5	cone	3	horn		35-20		60*	650, 6k	8	13x12x24	Wal.	Cloth, brown & black	38	169.95																		*Program material.
R-300B	port	10				3	horn		45-20		40*	4.2k	8	13x10x22	Wal.	Cloth, org. & black	26	119.95																			*Program material.
POLK AUDIO	Monitor 7	*	8	30	6½	cone	1	dome		40-21	90	60	60, 3k		24x14x9½	Wal.	Cloth, black	35	199.00																	Bookshelf. Optional stand. *Passive radiator.	
	9	*	8	33	(4) 4½	cone	1	dome		47-21	94	100	125, 5k		33½x9x10½	Wal.	Cloth, black	40	165.00																	Dipolar array. *Passive radiator.	
	5		6½	44			1	dome		45-21	94	50	3k		20x8½x10½	Wal.	Cloth, black	25	89.00																		
QUADRAFLEX	RS6		12	52	6	cone	1½	cone	M,T	40-18		40	500, 5k	8	26½x15½x12½	Wal.	Foam, black	46	179.95																		
	RS5		10	55	4½	cone	1½	cone		45-18		25	650, 6k	8	24½x14½x11½	Wal.	Foam, black	40	129.95																		
	RS4		10	60			3	cone		55-20		25	1500	4	23½x13½x11½	Wal.	Foam, black	30	89.95																		
	RS3		8	68			3	cone		60-20		20	1500	8	21½x12½x8	Wal.	Foam, black	25	59.95																		
RADIO SHACK	Mach One	Ac.sus	15			horn		horn	M,T	20-25		50	800, 8k	8	28½x17½x12	Wal.	Cloth, brown																				
	Nova-7B	Ac.sus	10	26	(2) 3	cone	3	cone	M,T	20-20		25	1500, 8k	8	22x12½x11	Wal.	*																		*Lattice work over cloth.		
	Nova-8B	Ac.sus	12	20	(2) 3	cone	3	cone	M,T	20-20		30	1200, 8k	8	25x14x11½	Wal.	*																		*As above.		
	MC-1500	Ac.sus	8							40-20		15		8	25½x13½x8	Wal.	Foam	26	79.50																		
	MC-500	Ac.sus	5	50						40-20		12	7k	8	11½x9½x5½	Wal.	Cloth		39.95																		
	Minimus 0.5	Ac.sus	4	96		cone				110-12		5		8	4½x6½x4½	Wal.	Cloth, black		12.95																		

Speakers

MANUFACTURER	MODEL	SPEAKER SPECIFICATIONS																			NOTES
		Enclosure type	Woofer dia., in.	Woofer resonance (in system)	Midrange dia., in.	Midrange type	Tweeter dia., in.	Tweeter type	Level control(s)	M-Mid, T-tweeter	Amplifier freq. response	Sens. to 1 Wt. input, dB SPL, 1 mtr. on-axis, 100 Hz-10 kHz	Power-handling capability, continuous watts	Crossover frequencies, Hz.	Impedance, nominal	Dimensions, inches	Wood finish	Grille material, color	Weight, lbs.	Price, \$	
REVOX	AXA4-3	Ac.sus	10	48	1½	dome	1	dome			50-20 ±3	91	60	400, 6k	4	21x12½ x10	Wal.	Foam, brown	33	900.00 pair	
RECTILINEAR	7	port	12	41	1½	dome	(2) 1	dome			32-20 ±2	95	350	200, 1.8k, 10k	8	35x18x12	Wal.	Cloth, black	80	399.00	
	5	Ac.sus	12	41	1½	dome	1	dome			32-20 ±2	91	250	200, 1.8k, 10k	6	25x15 x14½	Wal.	Cloth, black	72	299.00	
	IIIa	port	12	41	5	cone	(2) 2	cone			35-18 ±2	93	100	400, 5k, 11k	8	35x18x12	Wal.	Cloth, brown	75	279.00	
	XII	port	10	45	5½	cone	2½ 2½	cone	M,T		45-18.5 ±2	85	50	350, 4k	8	25x14 x10½	Wal.	Cloth, brown	42	159.00	
	Mini III	Ac.sus	8	50	5	cone	2	cone	M,T		50-18.5 ±4	97	75	400, 8k	4	12x19 x9½	Vinyl Wal.	Cloth, brown	27	109.00	
	XIb	port	10	45			3	cone	T		45-18.5 ±2	90	50	2k	8	23x12x10	Vinyl Wal.	Cloth, brown	32	99.00	
	4½	Ac.sus	10	43	2	dome	1	dome			35-20 ±2	90	200	800, 6k	6	25x13x14	Wal.	Cloth, black	55	225.00	
	2	Ac.sus	10	45			(3) 2	cone			35-18 ±3	94	100	2.5k	6	23½x13 x12	Wal.	Cloth, black	45	129.00	
ROLA CELESTION LTD.	UL6	ABR	6*				1	dome			80-20 ±3.5	80	20	2.5 kHz	8/4	16x11½ x8½	Wal.	Cloth, black	20	179.50	*Plus ABR (auxiliary bass radiator) equal to woofer diameter.
	UL8	ABR	8*				1	dome			70-20 ±3	80	25	2 kHz	8/4	11x23 x9½	Wal.	Cloth, black	25	249.50	*Plus ABR (auxiliary bass radiator) equal to woofer diameter.
	UL10	Ac.sus	10		2	dome	¾	dome			40-20 ±2	80	50	700 Hz, 5 kHz	8/4	12½x26½ x15	Wal.	Cloth, black	50	349.50	*Plus ABR (auxiliary bass radiator) equal to woofer diameter.
	DITTON 15	ABR	8*				1.5				75-14 ±5	90	30**	2.5 kHz	8/4	9.4x21x9	Wal.	Cloth, black	16.7	139.50	*Plus ABR (auxiliary bass radiator) equal to woofer diameter.
	DITTON 33	Ac.sus	10			cone	1	dome			60-20 ±3		33**		8/4	14x24 x10½	Wal.	Cloth, black		229.50	**Power rating to DIN 45 500. UL ratings are continuous rms sine wave.
	DITTON 44	Ac.sus	12		6	cone	¾	dome			60-25 ±4	90	44**	500 Hz,	8/4	14.6x30 x9.8	Wal.	Cloth, black	45	269.50	**Power rating to DIN 45 500.
	DITTON 25	ABR	12*		(2) 1½		¾	dome			60-18 ±5	90	60**	5kHz, 2kHz, 9kHz	8/4	14x32x11	Wal.	Cloth, black	45	319.50	*Plus ABR (auxiliary bass radiator) equal to woofer diameter.
	DITTON 66	ABR	12*		2	dome	¾	dome			50-25 ±4	86	80**	500 Hz, 5 kHz	8/4	15x39x11	Wal.	Cloth, black	68	469.50	*Plus ABR (auxiliary bass radiator) equal to woofer diameter.
RTR	DR-1	Ac.sus	(2) 10	30				*	T		30-40 ±3	90	100	300	8	16½x16½ x48	Wal.	Cloth, black	125	895.00	This speaker contains its own electronic crossover network, also tweeter amp. Bass amp required.
	280D	Ac.sus	(4) 10	35				cone	T		22-25 ±3	88	100	2.5k, 7.5k	8	16½x31 x16½	Wal.	Cloth, black	95	369.95	
	240D	Ac.sus	8, 10			pz.		super twtr cone & pz.	T		28-20 ±3	88	100	1200	8	14½x42 x12½	Wal.	Cloth, black	70	229.95	
	HPR-12M	port	10 12	50		cone			M,T		30-25	92	100	1500, 7.5k	8	14½x13 x36	Wal.	Cloth, blue	72	269.95	
	ESR-6	Ac.sus			*				T		1500- 30k	88	60		8	14½x14½ x12	Wal.	Cloth, black	23	179.95	Electrostatic add-on.
	EXP-8		8	40				cone	T		40-20	90	60	2000	8	11½x19 x8½	Wal.	Cloth, black	25	69.95	
	RUXTON	SSW-1	port	15	20					L		20-70 ±3dB			70 Hz		72x17x17	Wal.	Foam, black	150	695.00
200A		Ac.sus	12	45	5	cone	3	cone			25-18 ±5dB		50*	800Hz, 2k Hz	8	25x15x13	Wal.	Foam, black	45	160.00 pair	As kit only. *At 1 kHz.
100A		port	10	45			4	cone			45-15 ±5dB		25*	4k Hz	8	25x15x13	Wal.	Foam, black	40	110.00 pair	As kit only. *At 1 kHz.
50A		Ac.sus	8	60			4	cone			55-15 ±5dB		25*	3k Hz	8	18x12x9	Wal.	Foam, black	20	60.00 pair	As kit only. *At 1 kHz.
SANSUI	SP-7500X	port	16		8	cone	6x2	horn	T		25-22	98	130*	1k, 6k, 10k	8	17½x26 x11			47%	279.95	*Peak power.
	SP-5500X	port	15		5	cone	6x2	horn	T		25-20	98	120*	1k, 6k, 10k	8	17½x26 x11			43%	239.95	*Peak power.
	SP-2500X	port	12		5	cone	2	horn	T		30-20	96	100*	1.2k, 5k	8	15x25x11			40%	199.95	*Peak power.
	LM-330	port	10			2½	cone	T			31-20	92	60*	2000	8	12½x28 x12		Cloth, brown	41%	199.95	*Peak power.
	LM-220	port	8			2½	cone	T			32-20	91	45*	2000	8	11x24½ x10		Cloth, brown	26%	169.95	*Peak power.
	LM-110	port	6½			2½	cone	T			38-20	90	35*	2000	8	9½x21 x7½		Cloth, brown	18	249.95 pair	*Peak power.
SCHÖBER	LSS-10A	port	12	32	8	cone	1	horn	T		30-18	96	40*	250, 3500	8	24x34x16	Wal.	Cane, beige	60	250.00	As kit only; tweeter opt. *Program material.

The only problem with Dayton-Wright electrostatic speakers....



Is finding other system components that will measure up to them

So we solved that problem for you by developing a complete line of quality components with performance specifications second to none. We call it our Basic Black series — because each unit is designed to perform a basic system function. No more, no less.

There is the DW535 Infranoise Preamplifier designed for low impedance sources such as moving coil cartridges. Connect it between the phono cartridge output and the regular preamplifier input. Frequency response is 20Hz to 300KHz ± 0.1 dB, and distortion is under 0.002%.

For an ultra high definition preamplifier there is our model SPS — a state-of-the-art device employing discrete semiconductor augmented integrated circuitry. Harmonic distortion is well under 0.005% from 20-10,000Hz at 1.5 volts out; intermodulation distortion under 0.002%. Overall frequency response is 4Hz to 1MHz ± 1.5 dB, with high level input.

We also have a unit which combines the DW535 Infranoise Preamplifier with the SPS Professional Preamplifier. We call this one the SPL. It has all the features of the other two, as well as additional flexibility for tape recorder use. A separate earphone amplifier is built in, with sufficient power to drive most electrostatic earphones.

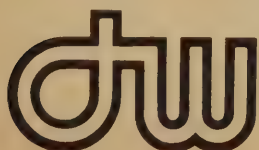
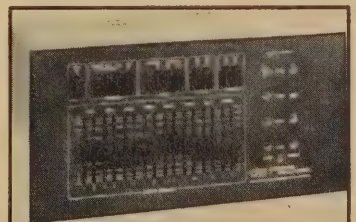
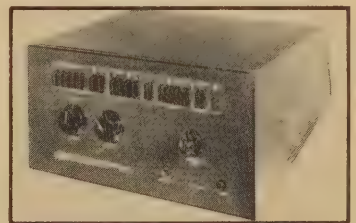
With sound sources that are less than ideal you will find the new SG Graphic Equalizer indispensable. In addition to the eight equalization frequency controls, we have incorporated an 18dB/octave Bessel derived scratch filter, which can be cut in at 8KHz or 11KHz, and a 24dB/octave rumble filter which can be inserted with its roll off frequency at 25 or 50 Hz.

If you want to know what's happening in your system, there is a stereo level meter unit with true dB indicating VU meters as well as peak indicating meters covering a 70dB range. Switching allows the monitoring of either preamplifier or graphic equalizer output, and a special cable set prevents a tangle of interconnecting wires.

Attractive and functional Rosewood cabinets are available to accommodate components singly or in combination.

Now all we need is a Power Amplifier. The delay in introducing a unit is mainly because we've set ourselves a stiff design task. We want the rise time to exceed all prior equipment in the system, and its transient intermodulation distortion to be correspondingly low. It must also have quick recovery time, have at least 400 watts channel power, deliver better than 280vA into a reactive load — and be uncomplicated. Look for it this fall.

If you are looking for the perfect sound system, write to us. We'll send you complete specifications and the name of your nearest dealer.



DAYTON-WRIGHT ASSOCIATES LIMITED

P.O. BOX 419 · THORNHILL · ONTARIO · CANADA L3T 4A2

Check No. 18 on Reader Service Card

Speakers

MANUFACTURER	MODEL		Enclosure type	Woofer dia., in.		Woofer response (in system)		Midrange dia., in.		Midrange type		Tweeter dia., in.		Tweeter type		Level controls		M-Mid, T-tweeter		Amphib. freq. response, Hz		Sens. for 1 W input @ SPL, 1 mft. on axis, dB Hz 10 Hz		Power handling capability, continuous watts		Crossover frequencies, Hz		Impedance, nominal		Dimensions, inches		Wood finish		Grille material, color		Weight, lbs.		Price, \$		NOTES	
SCOTT	S 100	Ac. sus.	15	38	(2) 4 1/4"	cones	(2) 1	domes	M, T	38 20 +3	82	125	700, 3 5k	4	29"x17 1/2" x14"	Wal.	Plas. brown	65	349.95																						
	S 71	Ac. sus.	12	38	4 1/4"	cone	(2) 1	domes	M, T	28 20 +5	79	100	900, 4.5k	8	25x15" x11"	Wal.	Linen, gray	46	199.95																						
	S 61	Ac. sus.	10	38	4 1/4"	cone	1	dome	M, T	30 20 +5	80	75	1k, 5k	8	25x14" x11"	Wal.	Linen, gray	43	169.95																						
	S 42	Ac. sus.	8	55				1	dome	T	35 20 +5	87	35	2 2k	8	22x11" x8"	Wal.	Plas. brown	22	79.95																					
SHERWOOD	Evolution Six	Ac. sus.	10	47	3 1/2"	cone	1	dome	T	32 18 +4	90	100	800, 4k	8	14x25x10	Wal.	Cloth, brown	44	Under 150.00																						
SONEX (SUMIKO)	One	Ac. sus.	6	65	3 1/2"	cone	7/8"	Pz		50-20 +5	97	50	1 5k, 10k	8	21x13 x9"	Wal.	Cloth, brown	21	185.00																						
	Three	Ac. sus.	6	50	3 1/2"	cone	7/8"	Pz		35 20 +5	100		500, 1 5k, 4k		14x38x15	Wal.	Cloth, brown	60	425.00																						
SONY	SSU-1800	Ac. sus.	10		2	dome	1/4"	dome		30 20		100	800, 3k	8	27x15x12	Wal.	Cloth, brown	60	200.00																						
	SSU-1600	Ac. sus.	12		2	dome	1/4"	dome		35 20		75	800, 3k	8	26x14x12	Wal.	Cloth, brown	50	150.00																						
	SSU-1400	Ac. sus.	10		1 1/2"	dome	2	cone		40 20		60	800, 4k	8	24x13x10	Wal.	Cloth, brown	38	120.00																						
	SSU-1200	Ac. sus.	10				3	cone		45 18		50	1k	8	24x13x10	Wal.	Cloth, brown	29	80.00																						
	SSU-1000	Ac. sus.	8				3	cone		50 18		50	1 5k	8	17x11x8	Wal.	Cloth, brown	17	100.00	pair																					
SPEAKERLAB	One	Ac. sus.	8	66			1/2"	dome	T	50-15 +5	82	40	2 5k	4	18"x11" x9"	Wal.	Cloth, brown	30	89.00																						Kit price, \$59.00.
	Two	Ac. sus.	10	54			1 1/2"	dome	T	45-16 +4	78	60	1250	4	23"x15" x12"	Wal.	Cloth, brown	49	139.00																					Kit price, \$89.00.	
	Three	Ac. sus.	12	56	6	cone	1/4"	dome	T, M	40-17 +3	76	100	700, 5k	8	23"x15" x12"	Wal.	Cloth, brown	49	199.00																					Kit price, \$142.00.	
	Four	Ac. sus.	12	56	6	cone	4"x11"	horn	M, T	40-17 +3	76	100	700, 5k	8	23"x15" x12"	Wal.	Cloth, brown	49	229.00																					Kit price, \$173.00.	
	Seven	Ac. sus.	10, 12	48	3x14	horn	4"x11"	horn	M, T	35-17 +3	83	150	700, 5k	4	25x18x15	Wal.	Cloth, brown	85	389.00																					Kit price, \$272.00.	
	K	horn	15		6x17	horn	4"x11"	horn	M, T	30-17 +5	91	200	400, 5k	4	50"x32" x28"	Wal.	Cloth, brown	170	595.00																					Kit price, \$389.00 in particle board.	
SUPERSCOPE	S-16A	port					3			80-17 +3	15		8	10"x17" x7"	Wal.	Foam, brown	7	69.95	pair																						
	S-26A	port	6 1/2"				3			60-18 +3	20	5000	8	11"x19" x7"	Wal.	Foam, brown	9 1/2"	79.95	pair																						
	S-208	Ac. sus.	8				3			50 20 +3	50		8	11"x19 1/2" x8"	Wal.	Foam, brown	14	199.95	pair																						
	S-210	Ac. sus.	10				3			40 20 +3	50	3000	8	12"x23" x9 1/2"	Wal.	Foam, brown	22 1/2"	139.95																							
	S-212A	Ac. sus.	12				3			30 20 +3	50	3000	8	14"x23" x11"	Wal.	Foam, brown	27	169.95																							
	S-312	Ac. sus.	12		4 1/2"		3			30 20 +3	50	2k, 6k	8	14"x23" x11"	Wal.	Foam, brown	28	199.95																							
TANNOY	Royale 85	Ac. sus.	15	42		2	horn	T		35 20 +5	92	85	1k	8	42"x23" x17"	Wal.	Cloth, brown	95	597.00																						Dual concentric.
	Regent 75	port	15	46		2	horn	T		35 20 +5	92	75	1k	8	33"x23" x16"	Wal.	Cloth, brown	70	507.00																						Dual concentric.
	Regent 55	Ac. sus.	12	42		2	horn	T		35 20 +5	90.5	55	1k	8	27"x23" x16"	Wal.	Cloth, brown	60	384.00																					Dual concentric.	
	Era 55	Ac. sus.	12	42		2	horn	T		35 20 +5	90.5	55	1k	8	32"x23" x17"	Wal.	Cloth, brown	60	420.00																					Dual concentric.	
	Integra 40	port	12	48		2	horn	T		40 20 +5	88	40	1k	8	23"x15" x11"	Wal.	Cloth, brown	40	330.00																					Dual concentric.	
TECHNICS BY PANASONIC	T 100	Ac. sus.	8			2		T		55 18 +3	94	60	4.8k		20x11x10	Wal.	Cloth, brown	26	79.95																						
	T 200A	Ac. sus.	10			2		T		44-18 +3		40	1.8k		21"x12" x10"	Wal.	Cloth, brown	30	99.95																						
	T 300	Ac. sus.	10		3	cone	1 1/2"	M, T		40 20 +3		50	1.5k, 7.5k		24"x13" x12"	Wal.	Cloth, brown	37	179.95																						
	T 400	Ac. sus.	12		5	cone	(2) 2 3/4"	cone rings	M, T	38 20 +3		90	700, 3k, 7.5k		27x15" x13"	Wal.	Cloth, var.	53	279.95																						
	T 500	Ac. sus.	(2) 10		5	cone	(2) 1 1/2"	domes	M, T	35 20 +3		100	600, 2k, 8k		29x18" x14"	Wal.	Cloth, var.	70	429.95																						
TOSHIBA	SS-510	port	10	58	4 1/4"	cone	1 1/4"	dome				50	800, 5k		13"x23" x13"		Metal, black	34 1/2"	229.95																						
TRANSLINE	Compact	port	10			1	dome			40-23 +4	10*	40	3000	8	12x7x24	Wal.	Cloth, black	25	155.00																						*Amp. power recomm. for average room. Kit price \$67.
	TLS 802	port	10			1	dome			35-23 +4	10*	50	3000	8	12x12x40	Wal.	Cloth, black	65	185.00																						*As above. Kit \$75.
	TLS 803	port	10		4	cone	1	dome		30-23 +3	15*	60	500, 3k	8	12x12x45	Wal.	Cloth, black	80	240.00																						*As above. Kit \$100.
	TLS-1000	port	8		4	cone		pz.		25 30 +3	15*	80	500, 3k	8	14x14x48	Wal.	Cloth, black	100	305.00																						*As above. Kit \$132.
	Monitor	port	8			(6) 2x5		es.		20 30 +3	15*	80	1500	8	14x14x62	Wal.	Cloth, black	110	675.00																						*As above. Kit \$370.
YAMAHA	NS-1000	Ac. sus.	12	40	3 1/2"	dome	1 1/4"	dome	M, T		90	100	500, 6k	8	28x15" x14"	Fbny	Foam, black	85 1/2"	1350.00																						*Beryllium domes.
	NS-1000M	Ac. sus.	12	40	3 1/2"	dome	1 1/4"	dome	M, T		90	100	500, 6k	8	26"x14" x12"	Blk.	Foam, black	68 1/2"	960.00																						*Beryllium domes.
	NS-690	Ac. sus.	12	40		dome	1 1/4"	dome	M, T		90	50	800, 6k	8	24"x11" x11"		Foam, black	48	560.00																						
	NS-670	Ac. sus.	10	40		dome	1 1/4"	dome	M, T		88	50	800, 6k	8	22"x12" x10 1/2"		Foam, black	42	460.00																						
	NS-3	Ac. sus.	10		1 1/2"	dome	1	dome	M, T		50	50	600, 1.2k	8	24x13" x10"	Wal.	Foam, black	45	460.00																						
	NS-2	Ac. sus.	10		1	dome	1	dome			40	40	8	8	24"x11" x11"	Wal.	Foam, black	29	200.00	pair																					

Some speakers are more equal than others.

Over the years, Rectilinear engineers have created a number of fine speakers. Some have even gone on to become classics.

Indeed, for a great many knowledgeable enthusiasts, Rectilinear has virtually redefined the listening experience.

Now, with a new generation of speakers, the Contemporary Laboratory Series, we have developed a family of speakers that are so clearly superior to anything that has gone before, that conventional comparisons no longer apply.

A case in point is the new Rectilinear 5.

Listening to this remarkable speaker is, quite simply, a revelation. It produces completely natural, uncolored sound of extraordinary clarity and subtlety. Yet, it is capable of generating very high sound pressure levels with only moderate power input.

The outstanding performance of the Rectilinear 5 is directly traceable to its comparatively simple, but highly refined design.

Flat, flatter, flattest.

Though nominally a four-way speaker system, the Rectilinear 5 differs from conventional multiple driver systems in some very fundamental respects.

In most systems, the individual drivers are operated over a restricted portion of their actual frequency range with the unwanted or undesirable

frequency extremes "dumped" into elaborate crossover networks to maintain some semblance of smooth response.

By contrast, we take a simpler, but far more effective approach. We painstakingly design each driver for exceptionally smooth response over its entire operating range with the top end rolling off naturally, both mechanically and acoustically. Thus, we come very close to attaining that most elusive of all speaker characteristics, an apparently seamless transition from driver to driver.

Because the individual driver characteristics and their interrelationships have been so carefully worked out, the use of complicated crossovers with all their attendant problems is largely avoided. Instead, sophisticated lead-

ing edge filters are employed, allowing a much smoother transfer of energy. But of equal importance, phase integrity is maintained and transient response greatly improved.

Another dividend of this innovative approach to speaker design is the enormous power handling built-in to the Rectilinear 5.

The final touch.

Obviously, we've invested a great deal of time and effort to make the Rectilinear 5 the most accurate speaker current technology permits.

Moreover, to insure unvarying excellence from unit to unit, we have instituted a new quality control program that may well be the most stringent in the industry.

One last thought. At a time when all too many companies have opted for exotic designs (read expensive), we have deliberately sought to create a clearly superior speaker system at a price that would still be within the reach of the discriminating enthusiast.

We think that alone makes us a little bit more equal than all the rest.

For complete information on the Rectilinear 5 and the rest of the Contemporary Laboratory Series write: Rectilinear Research Corporation, 107 Bruckner Boulevard, Bronx, N.Y. 10454. Canada: H. Roy Gray, Markham, Ont. Military and International inquiries: Rectilinear International Corp.



Rectilinear Dispersion Base optional

The Rectilinear® 5

Check No. 54 on Reader Service Card

Headphones

MANUFACTURER	MODEL	Type (dynamic, electrostatic, etc.)	Freq. response, Hz-KHz, ± 2 dB	Impedance, ohms	Sensitivity, dB SPL for 1 mV input	Maximum input, mV	Distortion, % at rated input, 1 kHz	Cord length, ft.	Weight, oz.	Price, \$	NOTES
AKG	K 140	dyn.	20-20	600	100	240	1.0	9.8	6	34.50	Main transducer and 6 passive diaphragms avail.
	K 240	dyn.	20-20	600	100	240	1.0	9.8	9	69.50	
ASTATIC	AH-10	dyn.	30-18k	8	105	500	—	6	10	14.95	
	AH-20	dyn.	20-20k	8	105	500	—	10	12	26.95	
AUDIO-TECHNICA	AT-701	dyn.	30-20 ± 2	4-16	97	1000			9	39.95	Adaptor box provides spkr. switching, accepts two sets headphones. As above.
	AT-702	dyn.	25-20 ± 2	4-16	97	1000			9	49.95	
	AT-703	dyn.	20-20 ± 2	4-16	94	1000			9	69.95	
	AT-707	elect.	20-20 ± 2	4-16	89	1000				79.95	
	AT-706	elect.	20-22 ± 2	4-16	94	10k	6%			129.95	
AVID	PRO 730	dyn.	20-18.5	300	50	10k	0.5	15	16	26.95	Completely field-repairable; mylar diaphragm.
	885	dyn.	30-17.5	300	50	10k	1.0	15	15	14.95	
BEYER (REVOX)	DT302	dyn.	20-20	600			1.0*		2½	29.95	Open-air. *At 115 dB. Four channel; vol. controls for each chan. *At 120 dB. *At 120 dB.
	DT204	dyn.	20-20				0.3*	10	14	120.00	
	DT48	dyn.	16-20 ± 2	8, 25, 200			0.2*	11	15	120.00	
	DT480	dyn.	20-20	8, 25, 400			0.2*	12	16.5	90.00	
	DT100	dyn.	30-20	8, 100, 400			0.2*	12	10	64.00	
	DT900	dyn.	30-18	2000, 600			0.40*	7	9	29.95	*At 120 dB. Modular const. *At 120 dB.
CRAIG	9417			8				8		12.95	
ESS	Heil	*	20-20	32	35	1.4V	0.3	14	14	97.00	*Full range Heil air-motion transformer elements, Sq. wave rise time: 15 mS @5 kHz. Open-air design.
KOSS	ESP-9B	ES	10-19 ± 5	4-16		10V	0.2*	6	19	175.00	*Distortion at 100 dB SPL.
	ESP-6A	ES	30-19 ± 5	4-16		10V	0.2*	10	27	130.00	*As above.
	HV/1LC	dyn.		150		85	0.4*	10	10.7	54.95	*As above.
	HV/1A	dyn.		175		77	0.4*	10	9.3	49.95	*As above.
	HV/1	dyn.		175		150	0.6*	10	9.3	44.95	*As above.
	Pro-4AA	dyn.		250		1200	0.6*	10	9	65.00	*As above. Pro-600AA, 600 ohms, \$70.00.
	Phase/2	dyn.		150		10V	0.6*	10	24	75.00	*As above. Panoramic source controls, amb. expand swit.
	K/2+2	dyn.		85		1200	0.6*	10	22	90.00	*As above.
	4-chan. Pro-5Q	dyn.		85		1200	0.6*	10	21	75.00	*As above.
	4-chan. K/6LCQ	dyn.		85		700	0.6*	10	22	49.95	*As above.
	4-chan. KD/727B	dyn.		130		120	1.0*	10	19	34.95	*As above.
	K/6LC	dyn.		110		80	1.0*	10	17	29.95	*As above.
	K/6	dyn.		130		500	1.0*	10	15	19.95	*As above.
	SP/3XC	dyn.		130		500	1.0*	10	15	15.95	*As above.
	Technician/VFR	dyn.	10-22	3.2-600			0.4*	10	17	75.00	*As above. Variable resp.
LESLIE	W-4	dyn.	20-20 ± 5	4-16	53	*	0.07	13	12%	44.95	Bass selector switch; mylar diaphragm. Open air design. *3.48 V peak, 870 mV cont.
	W-2	dyn.	30-15 ± 5	4-16	55	*	0.07	6%	8%	14.95	
MARANTZ	SE15	elec.	20-20 ± 5	30	*		1.5	6	14	129.95	*100 dB for 2.8 V input.
	SD5	dyn.	30-15	8	*		1	6	16	39.95	*100 dB for 0.15 V input.
MICRO (TANNOY)	Micro	ES	20-25	8	98*	100V	1	8	10	129.00	*@1 kHz, 100 V.
NAKAMICHI	HP-100	dyn.	20-20 ± 3	8	*	500 mW	0.8	8	14.3	50.00	*90dB/mW at 1 kHz Re: 0dB = 0.0002µbar
PEARL (ERCONA)	D42	dyn.	30-20	200	0.3	*	0.5	8	9½	34.95	Mono or stereo. Washable ear pieces. Coil cord, w/mono/stereo sw.
	RD224	dyn.	20-18	8	1.0	100	1.0	8	12	24.95	
PIONEER	SE-700	film	20-20	4-16	100*	30V	—	10	13	79.95	*Ref. to 3V. *Ref. to 3V. *Ref. to 3V. *Ref. to 0.3V.
	SE-500	film	20-20	4-16	100*	30V	—	10	11	49.95	
	SE-0-404 (Q)	dyn.	20-20	4-16	105*	500	—	10	24	69.95	
	SE-505	dyn.	20-20	8		500	—	16	16	59.95	
	SE-405	dyn.	20-20	8	113*	500	—	16	16	44.95	
	SE-305	dyn.	20-20	8	—	500	—	12	14	34.95	
	SE-205	dyn.	20-20	4-16	—	500	—	8	16	24.95	

"Bring it back alive."

"Professionally, people see me playing concerts or leading the Tonight Show orchestra. But when I relax to the purest sound of my favorite music, nothing brings it back alive like the incredible Sound of Koss.

"From the deepest, toe-curling bass notes of a pipe organ, to the crisp, brilliant highs of the brass section,

nothing can match the excitement of a live performance as well as Koss Stereophones. And nothing can match the incredible sound of the PRO-4AA. Because the Koss PRO-4AA features the only driver element designed specifically for stereophones. So when it comes to mixing the sound in your head instead of

on the walls of your living room, you'll hear two more octaves than you've ever heard before in a dynamic stereophone.

"Take a tip from old 'Doc' and hear it like you've never heard it before... on Koss Stereophones. From \$15.95 to \$175, they're the greatest. Just ask your Audio Specialist for a

live demonstration, or write for a free full-color catalog, c/o Virginia Lamm. Either way, you'll 'bring it back alive'."

Koss PRO-4AA Stereophone



©Koss Corporation



KOSS® stereophones

from the people who invented Stereophones.

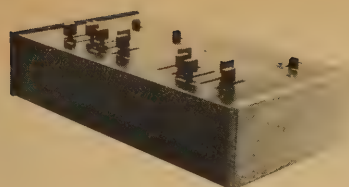
KOSS CORPORATION, 4129 N. Port Washington Ave., Milwaukee, Wisconsin 53212 • Koss S.r.l., Milan, Italy • Koss Limited, Ontario

Check No. 28 on Reader Service Card

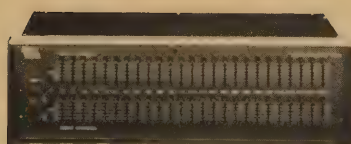
Headphones

MANUFACTURER	MODEL	Type (dynamic, electrostatic, etc.)	Freq. response, Hz-kHz, ±? dB	Impedance, ohms	Sensitivity, dB SPL for 1 mV input	Maximum input, mV	Distortion, % at rated input, 1 kHz	Cord length, ft.	Weight, oz.	Price, \$	NOTES
PICKERING	DA2 DA3 PH4955	dyn. dyn. dyn.	30-19 20-20 40-11	8 15 8	* * *	300 200 5w	1.0 0.5 1.0	7 10 10	11 7½ 28	22.95 39.95 64.95	*100 dB SPL for 60 mV. *As above. *As above.
PRIMO	DH-1006 DH-10052 DH-1001 DH-1008	dyn. dyn. dyn. dyn.		4/16 8 4 8		500 500 200 500	1.0 1.0 1.7 1.0	6½ 6½ 10 6½	15 14 11 5½	35.00 40.00 15.00 30.00	With boom microphone.
SANSUI	QH-44 4-chan. SH-15 SH-5	dyn. dyn. dyn.	20-20 20-20 20-20	25 25 25	98 97 97	100 65 65		8% 9% 6%	15% 9% 8%	69.95 79.95 34.95	Non isolating, stereo/4-chan. sw. Level control for rear. Non isolating. Non isolating.
STAX (DISCWASHER)	SR-X SR-5	ES ES	20-23 ±2 20-19 ±3				0.8 0.5	6 6	18 13	230.00 130.00	Includes SRD-7 adapter; phones alone for use with SRA-12 preamp \$185.00. Includes SRD-6 adaptor; phones alone \$85.00.
STANTON	65-4C 4-chan. 60 50 40	dyn. dyn. dyn.	20-20 40-11 ±3 60-10 ±3 60-10 ±3	15 8 8 8	0.1V* 0.1V* 0.1V* 0.1V*	1.2V 500 mW 500 mW 500 mW	0.5 1.0 1.0 1.0	11 10 10 10	19 28 21 21	69.95 64.95 54.95 44.95	2/4 chan. 4 spkrs. *Sens. @100 dB. Sep. 2-way woofer & tweeter in each cup w/L/C xover. *As above. Vol. contrl. on earcups. *As above. *As above.
SUPEREX	PEP-81 PEP-79E EP-5 PRO VII CL-1 Classic TL-3 QT-4B 4-chan. PRO 6-D 914 927 SW-IV ST-N 930 QT-4 4-chan.	ES ES dyn/es dyn dyn. dyn. dyn. dyn. dyn. dyn.	10-22 ±5 10-22 ±5 10-24 ±5 15-23 ±6 10-20 ±5 25-20 ±6 20-18 ±6 15-22 ±6 15-20 ±8 25-19 ±8 30-15 ±8 30-15 ±8 40- 14.5 25-17	8 8 8 80 35 70 20 10 70 10 8 8 8 20	95 95 85 95 95 95 85 95 95 95 100 100 100 85	10V 10V 10V 6V 6V 5V 3V 6V 6V 6V 5V 5V 5V 3V	0.20 0.25 0.50 0.50 0.30 0.60 1.00 0.5 0.4 0.5 1.0 1.0 1.0 1.0	15 15 15 15 15 15 15 15 15 15 10 7 7 15	8½ 8½ 18 18 10½ 10 16 18 15 16 14 13 13	150.00 90.00 80.00 65.00 55.00 40.00 65.00 60.00 40.00 35.00 25.00 20.00 — 50.00	Console w/vol. controls. Jacks for 2 sets phones. Dyn. woofer/e.s. tweeter. Dyn. woofer/ceramic tweeter. Mylar diaphragm. Stereo/4-channel sw. Dynamic woofer/ceramic tweeter. Slide level controls. Dynamic woofer/ceramic tweeter. Four-channel phones.
SUPERSCOPE	HP-10	dyn.	30-15	8	100			6		19.95	
TECHNICS BY PANASONIC	EAH-80A EAH-420 4-chan.	elect. dyn.	20-20 20-20	8 8		5V 1V	0.8	13 9	12½ 24	79.95 79.95	Spkr./phones selector & control. 4-channel/stereo sw.
TELEPHONICS	Stereo 20 Stereo 30 Stereo 50 TEL-101F	dyn. dyn. dyn. dyn.	20-21 16-22	100 100 100 100	* * * *	0.5* 0.2* 0.2* 0.2*	10 10 14* 10	6 6 10½ *		29.95 39.95 49.95 59.95	*Max input 400 mW. Dist @ 103 dB SPL. *Max input 400 mW. Dist. @ 110 dB SPL. *Max input 400 mW. Dist. @ 112 dB SPL. *Max input 400 mW/ch. Dist. @ 101 dB SPL. Four chan.
TOSHIBA	HR-50 HR-40 4-chan.	dyn. dyn.	20-20 20-20	4/16 4/16		250 300		6% 6%	20% 27%	29.95 54.95	4-channel/stereo switch.
UHER	W674	dyn.	20-20	4				8	2.2		Foam earpiece.
VIDAIRE	871 4-chan. 853 4-chan. 859 983 998 960C	dyn. dyn. dyn. dyn. dyn. dyn.	18-20 20-20 20-20 20-20 15-22 20-18	4-8 8-16 4-16 8-16 4-16 8-16				10 13 10 10 10 6	48 24 30 20 38 9	44.00 36.00 56.00 28.00 47.00 9.00	Stereo switch. Tone cntls. Vol cntls. Vol cntls.
YAMAHA	HP-1 HP-2	dyn. dyn.	20-20 20-20	150 150	44 41	1000 1000		8 8	.64 .51	65.00 45.00	Soft leather headband. Foam ear pads. As above.

Equalizers



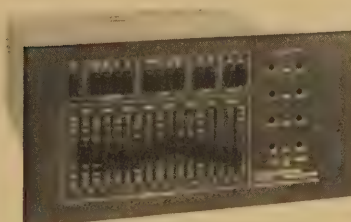
Ace Audio AE2002



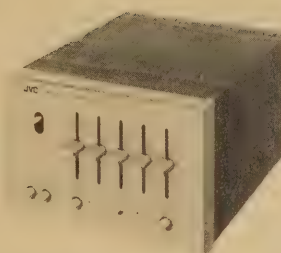
Altec 729A



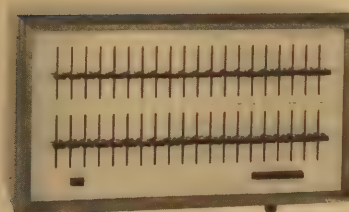
BSR FEW-3



Dayton-Wright SG Mk2



JVC SEA-10



SAE Mk-27B



Soundcraftsmen PE-2217



TAPCO 2200

MANUFACTURER	MODEL	Channels	Bands	Bandwidth, octaves	Range, dB ±	Maximum output, rms	THD, %	S/N, rated output	Dimensions, in.	Weight	Price, \$	NOTES
ACE AUDIO	AE2002	2	5	2	12	8	.05	80	3½x12¼ x7	3	84.25(K) 133.75(W)	Sep. controls each chan; tape mon. sw.; defeat sw. Lowest & highest controls = bass & treble. Incl. brushed alum face plate.
ALTEC	729A*	2	24	1/3	14	4.5V	**	80	18½x5¼ x8	13	875.00	*Acoussta-Voicette. **Less than 0.5.
BSR	FEW-3	2	12	1	12	10	.05	80	17¼x7 x5¼	10	199.95	Accessory Sound Level Meter, SLM-1, with Test Record avail.
	FEW-2	2	5	2	12	10	.05	80	11¼x7 x4½	4	99.95	
	FEW-4	4	5	2	12	10	.05	80	17¼x7 x5¼	10	199.95	
DAYTON-WRIGHT	SG mK2	2	8	1.2	12	7	.007	*	13x10 x6½	10	862.00	Incl. tape monitor 1,2. Dub 1 to 2, 2 to 1, 2 AUX channels. High freq. cut @ 18 dB/oct. at 8 kHz - 11 kHz. Low freq. cut at 24 dB/oct. at 50 Hz or 25 Hz. *90 dB S/N @ 1.5V.
JVC	SEA-10	2	7	1 2/3	12	3	0.09	70	5¼x7½ x10	5½	129.95	SEA record feature; tape mon switch.
QUINTESSENSE	Equalizer I	2	5	*	12	9	.01	95	11x14 x4	11	500.00	**"Bands" establish inflection points on R.I.A.A. equalization curve.
SAE	27B	2	20	½	8/16	12	0.02	90	17x7 x8¼	18	550.00	Pink noise generator; precision toroid inductors; drive for 600 ohm loads. Pink noise generator.
	2700B	2	20	½	8/16	12	0.02	90	19x7 x8¼	19	600.00	
SOUND-CRAFTSMEN	20-12A	2	10	1	12	7	0.1	90	20x11¼ x7¼	28	299.50	W. test disc, computone charts. Includes case or rack mounts. As above plus 2 LED balancing circuits; front-panel tape or PB EQ.
	RP2212	2	10	1	12	7	0.1	90	20x11¼ x7¼	28	349.50	
TAPCO	2200	2	10	1	15	10	0.1	85			289.00	Rack mount; balanced & unbal. inputs & outputs; 2 mtrs.; chan. level contrs.

Microphones

MANUFACTURER	MODEL	Directional pattern	Operating principle	Case material	External finish	Impedance, ohms	Freq. resp., Hz-kHz ± 2 dB	EIA sensitivity, dBm	Mic connection	Cable length, ft.	Cable plug type	Dimensions, in.	Weight, oz.	Mounting method	Price, \$	NOTES
AKG	D-1000E	card	dyn.	brass	brush	200	40-18 ± 3.5	*51	XLR	**15	not furn	6x1½	9%		75.00	*Re 1 mW/10 dynes/cm.
	D-200E	card	dyn.	alum	brush	200	30-15 ± 3	*55	XLR	**15	7x x1½	8			85.00	**Hi imp. cable avail.
	D-707E	card	dyn.	brass	brush	200	50-15 ± 3.5	*52	XLR	**15	not furn	6x1½	5.7		55.00	***As above.
	D-160E	omni	dyn.	brass	brush	200	40-18 ± 2.5	*55	XLR	**15	not furn	7x½	7.5		69.00	***As above.
	D-190E	card	dyn.	brass	brush	200	40-15 ± 3	*50	XLR	**15	not furn	6x x1½	6		65.00	***As above.
ADVENT	MDC-1	card	dyn.	metal	blk	500	50-16k		Atch.	20	phone	5x x1½	10		99.95 pair	Matched pair with case, desk stands.
ASTATIC	810	Card	Dyn.	Zinc	Chrome	150/ 40k	40-15	-147	Swt.	18		5½x 1¼	8	5/8 x 27	85.00	
	820	Omni	Dyn.	Steel	Chrome	150/ 40k	40-18	-154	Swt.	18		9.0x x¼	6	5/8 x 27	79.50	
	840	Omni	Dyn.	Alum	Chrome	150	50-16	-153	Swt.	30		2½x½	1¼	Lav.	85.00	
	850	Card	Dyn.	Zinc	Chrome	150/ 40k	40-15	-147	Swt.	18		6¼x2	9%	Lav.	95.00	
	857L 77	Card Card	Dyn. Dyn.	Zinc Zinc	Nickel Chrome	150 38/150 /40k	50-15 30-15	-150 -144	Swt. Swt.	8 18		6¼x2 4¼x 2¼	9% 40	Lav. Lav.	66.00 90.00	
BEYER (REVOX)	3500	Uni.	Dyn.	Metal	Chrome	600	40-18	-149	XLR	16%	Not furn.	6½x 1		Clamp.	165.00	w. wind screen, table stand.
	M550S	Omni.	Dyn.	Metal	Blk. chrome	500	50-16 ± 3	-152	Atach.	15	Phone	5x1	8	Clamp	42.50	W. tripod.
	M260	Hyper card	Rib.	Metal	Matte blk.	200	50-18 ± 3	-153	XLR	16%	Not furn.	7x1	8	Clamp	110.00	M260SM, w. on/off bass cut swit, also avail.
	M160	Super card	Doub. rib.	Metal	Matte blk.	200	40-18 ± 2	-152	XLR	16%	Not furn.	6x1	6	Clamp	230.00	
	M500	Super card	Rib.	Metal	Matte blk.	200	40-18 $\pm 2½$	-153	XLR	16%	Not furn.	7½x 2	8	Clamp	140.00	4-stage, built-in pop screen.
	M69	Card.	Dyn.	Metal	Matte blk.	200	40-16 ± 3	-144	XLR	16%	Not furn.	7x1	8	Clamp	95.00	M69SM, w. on/off & bass cut swit, also avail.
	M101	Omni.	Dyn.	Metal	Matte blk.	200	40-20 ± 2	-150	XLR	16%	Not furn.	4½x¼	3½	Clamp	120.00	W. windshield.
	X1N	Card.	Dyn.	Metal	Matte blk.	200	30-18 ± 2	-148	XLR	16%	Not furn.	7x1¼	11	Clamp	80.00	X1HLC, w. Hi & Lo swit., also avail.
	M201	Hyper card.	Dyn.	Metal	Matte blk.	200	40-18 $\pm 2½$	-149	XLR	16%	Not furn.	6x1	8	Clamp	165.00	w. windshield.
	M810	Card.	Dyn.	Metal	Matte blk.	500	50-16 ± 3	-148	DIN	16%	Phone	5x1½	9	Clamp	70.00	W. windshield, quick release clamp.
	M67	Card.	Dyn.	Metal	Matte blk.	200	40-18 ± 3	-148	XLR	16%	Not furn.	8x1½	11	Clamp	130.00	W. windshield.
	M88	Super card.	Dyn.	Metal	Matte blk.	200	30-20 ± 2	-144	XLR	16%	Not furn.	7x2	9	Clamp	218.00	
CRAIG	9110	Omni.		Alum	Chrome					6	Dual				6.95	Incl. wind screen.
ELECTRO-VOICE	CS-15	Card.	Elect.	Steel	Beige	Lo	40-18 ± 3	-137	Swt. A3	15		7x1		Clamp	198.00	*Single-D.
	CO-85	Omni.	Elect.	Steel	Beige	Lo	70-16 ± 3	-152	Swt. A3	15			3	Pin*	150.00	*Tie tack.
	DS-35	Card.	Dyn.	Alum.	Beige	Lo	60-17 ± 3	-148	Swt. A3	15		7¼x 1 7/8	9	Clamp	90.00	*Single-D.
	RE20	Card.	Dyn.	Steel	Beige	Lo	45-18 ± 3	-150	A3M	15		8½x2	26		300.00	*Var-D (R); 10 freq. tilt- down swit.
	RE-15	Super card.	Dyn.	Steel	Beige	Lo	80-15 ± 3	-150	A3M	15		6½x 1½	6		180.00	*Var-D (R); Re-10, same for less exacting work, \$110.00. RE-16, super windscreen \$190.00; RE-11, 10, windscreen, \$120.00.
	RE-55	Omni.	Dyn.	Steel	Beige	Lo	40-20 ± 3	-149	A3M	15		10½x 1¼	8½		190.00	
	DO-54	Omni.	Dyn.	Steel	Beige	Lo	50-15 ± 3	-149	A3M	15		5½x 1¼	6½		87.50	
	635A	Omni.	Dyn.	Steel	Beige	Lo	80-13 ± 2	-149	A3M	15		6x1½	6		60.00	
	649B	Omni.	Dyn.	Alum.	Beige	Lo	70-10 ± 3	-155		30		2¼x¼	1	*	88.50	*Lavalier; w. neck cord, belt clip, std. clip, pouch.
	660	Super Card.	Dyn.	Zinc	Satin chrome	Hi/ Lo	90-13 ± 3	-150	A3M	15		6½x 1½	10½		72.00	*Var-D. 661, same w. on/off switch.
	644	Card.	Dyn.	Zinc/ brass	Gray	Hi/ Lo	40-12 ± 3	-148	MC4F	15		16x 2¼	41	5/8 x 27	120.00	
	671	Card.	Dyn.	Zinc	Satin chrome	Hi/ Lo	60-14 ± 3	-155	A3M	15		6¼x2	8		68.95	Built-in windscreen.
	670	Card.	Dyn.	Alum.	Brass	Hi/ Lo	60-14 ± 3	-151	A3M	15		7½x 1½	6		49.20	
	627B	Card.	Dyn.	Zinc	Satin chrome	Hi/ Lo	60-13 ± 3	-152	A3M	15		6½x 1½	7½		49.80	626A, same for less exacting work, integral cable, \$36.30.
	636	Omni.	Dyn.	Steel	Satin chrome	Hi/ Lo	60-13 ± 3	-154	MC4M	15	Not furn.	10½x 1¼	15	5/8 x 27	75.00	W. on/off swit.
	631A	Omni.	Dyn.	Zinc	Satin chrome	Hi or Lo	80-13 ± 3	-149	A3M	15		6x1½	6		49.80	W. removable on/off swit.
	647A	Omni.	Dyn.	Steel	Beige	Hi or Lo	70-10 ± 6	-155		18	Not furn.	3½x ½	2	*	66.00	*Lavalier type, w. belt clip, cord, & std. clip.

MANUFACTURER	MODEL	Directional pattern	Operating principle	Case material	External finish	Impedance, ohms	Freq. resp., Hz-kHz ± 2 dB	ELA sensitivity, dBm	Mic connection	Cable length, ft.	Cable plug type	Dimensions, in.	Weight, oz.	Mounting method	Price, \$	NOTES
LAFAYETTE	MU-100	Uni.	Dyn.	Alum.	Nickel	600/50k	200-10 ± 6		XL	15	Not furn.	7x1	9	5/8 x 27	39.75	
	MU-101	Omni.	Dyn.	Alum.	Alloy	600/50k	200-10 ± 6		XL	15	Not furn.	7x1 1/2	9	5/8 x 27	39.75	
	MO-102	Omni.	Dyn.	Alum.	Alloy	600/50k	50-13 ± 6		XL	15	Not furn.	7x1 1/2	6 1/2	5/8 x 27	39.75	
	99-46427	Uni.	Elect.	Alum.		600	30-16 ± 5			15	Phone	10x1	8	5/8 x 27	34.95	
	ML-1	Omni.	Elect.	Alum.	Alloy	600	50-15 ± 5		Atch.	15	Phone	1 1/2x 1 1/2	1/2	Clip	19.50	
	ML-2	Omni.	Elect.	Alum.		800	50-13 ± 5		Atch.	15	Phone	1 1/2x 1 1/2	1/2	Clip	24.50	
	99-46872	Omni.	Elect.	Alum.		250	20-15 ± 5	-150	XL	15	Not furn.	1/2x 1/2	1/2	Clip	59.95	*Tie tack; 3-oz power supply.
MERITON	DNM-10	Omni.	Dyn.			250	100-10 ± 6	-82	Mini			1x5	2		9.95	W. windscreen, tablestand.
	DNM-20	Omni.	Dyn.			250	70-12 ± 6	-80	Mini			1x5 1/2	2 1/2		19.95	On/off swit.; W. tablestand.
	CNM-70	Omni.	Elect.			600	40-20 ± 6	-73	Phone	16 1/2		1x6	6		79.95	FET amp.
	CNM-75	Uni.	Elect.			600	50-15 ± 6	-73	Phone	16 1/2		1x6 1/2	5		99.95	Base roll-off swit.
	DNM-25	Uni.	Dyn.			250	150-10 ± 6	-78	Phone	16 1/2		1x6 1/2	3 1/2		14.95	On/off swit.
	DNM-40	Uni.	Dyn.			600/50k	100-12 ± 6	-76	Phone	16 1/2		1x6 1/2	5		39.95	W. 3 windscreens; on/off swit.
NAKAMICHI	CM-1000	Card.	Cond.	Metal	Blk.	600	20-20 ± 2.5	-67*	XLR	20	XLR	5 1/2x 1/2	5	5/8 x 27 stand adapt.	290.00	Includes battery power supply. Interchangeable capsule. *0 dB = 1V/ μ bar
	CM-300	Card./omni	Elect.	Metal	Blk.	200	30-18 ± 3.5	-76*	XLR	17	Phone plug	8x 1/2	6	5/8 x 27 stand adapt.	110.00	Set of 3 for \$300.00. Interchangeable capsules. *0 dB = 1V/ μ bar
NEUMANN	U-87	*	Cond.	Metal	Chrome	150/250	40-16 ± 6	-137	XLR	25	XLR	8x2 1/2	20	5/8 x 27	645.00	For close miking. Optional batt.; -10 dB pad switch. Low freq. sw. rolloff sw. *Omni. card., fig. 8. -10 dB pad switch. Requires power supply. *As above.
	KM-83	Omni.	Cond.	Metal	Chrome	200	40-20 ± 6	-137	XLR	None	None	4 1/2x 1/2	3	5/8 x 27	230.00	*As above, w. low-freq. rolloff for P.A. use.
	KM-84	Card.	Cond.	Metal	Chrome	200	40-20 ± 6	-137	XLR	None	None	4 1/2x 1/2	3	5/8 x 27	230.00	-10 dB pad switch. *Omni. card., fig. 8.
	KM-85	Card.	Cond.	Metal	Chrome	200	40-20 ± 6	-137	XLR	None	None	4 1/2x 1/2	3	5/8 x 27	230.00	*As above.
	KM-86	*	Cond.	Metal	Chrome	200	40-20 ± 6	-140	XLR	25	XLR	7 1/2x 1 1/2	7 1/2	5/8 x 27	605.00	*Omni. card., fig. 8.
	KM-88	*	Cond.	Metal	Chrome	200	40-16 ± 6	-138	XLR	25	XLR	5 1/2x 1 1/2	3 1/2	5/8 x 27	605.00	*As above.
	KMS-85	Card.	Cond.	Metal	Chrome	200	40-16 ± 6	-137	XLR	25	XLR	8 1/2x 1 1/2	10 1/2	5/8 x 27	552.00	For hand-held or close miking.
	U-47fet	Card.	Cond.	Metal	Chrome	200	40-16 ± 6	-137	XLR	25	XLR	6 1/2x 2 1/2	24 1/2	5/8 x 27	575.00	-10 dB pad, -6dB pad betw. amp. & console
	SM-69fet	*	Cond.	Metal	Chrome	200	40-16 ± 6	-140	Tuchel	33	XLR	10x 1 1/2	16	5/8 x 27	1568.00	low freq. rolloff sw.
	QM-69		Cond.	Metal	Chrome	200	40-16 ± 6	-140	Tuchel		XLR	11 1/2x 1 1/2	16	5/8 x 27	1830.00	*Omni. card., fig. 8.
	KMA	Omni.	Cond.	Metal	Gray	200	40-16 ± 6	-137	Atch.		Tuchel	1 1/2x 3/4	2	Clip	343.00	4-chan. system w/4 cardioid in clover-leaf pattern.
	KML	Card.	Cond.	Metal	Gray	200	40-16 ± 6	-137	Atch.		Tuchel	2x 1/2	2	Clip	324.00	Lavalier. BS-18 battery supply; \$182.
	KU-80	*	Cond.	Metal	Black	200	40-16 ± 6	-137	Tuchel		XLR	*	160		1855.00	Lavalier. BS-45a battery supply; \$93.00. *Binaural system w/mike in rubber dummy head.
OLSON	EO-200	Omni.	Elect.	Alum.	Gold	Lo	30-16 $\pm 1 1/2$	-140	Can.	20		8 1/2x 2 1/2		Clamp	36.00	
	EQ-200	Omni.	Elect.	Alum.	Gold	Lo	30-16 $\pm 1 1/2$	-135	Can.	20		8 1/2x 2 1/2		Clamp	39.00	
	MK-080	Card.	Elect.	Alum.	Gold	Lo	50-15 $\pm 1 1/2$	-120	Phone	18		8x2 1/2			21.98	
	EO-300	Omni.	Elect.	Alum.	Gold	Lo	70-13 $\pm 1 1/2$	-115	Phone	18		3 1/2x 1 1/2		*	24.00	*Tie tack.
	EC-340	Omni.	Elect.	Alum.	Gold	Lo	55-16 $\pm 1 1/2$	-125	Can.	18		8x2 1/2		Clamp	40.00	
PEARL (ERCONA)	DC21	Card.	Cond.	Alum.	Chrome	*	30-20 ± 3		Atch.	33	Preh.	3x 1/2	1 1/2	5/8 x 27	175.00	*30, 50, 200 or 600 bal. Also Hi-Z unbal.
	DC20	Card.	Cond.	Alum.	Chrome	*	30-20 ± 3		Atch.	33	Preh.	3x 1/2	1 1/2	5/8 x 27	165.00	*As above.
	TC4-USV	Card.	Cond.	Alum.	Chrome	200*	30-20 ± 3		Tuchel	20	Preh.	1 1/2x 5/8	5	5/8 x 27	425.00	*Bal. Remote pattern control.
	VM41-4130	Card.	Cond.	Alum.	Chrome	200*	30-20 ± 3		XLR	20	Preh.	10x 1/2	5	5/8 x 27	495.00	*Bal. Interference cond. mike.
PIONEER	CM-1	Omni.	Eltrt.		Chrome	600	20-20 ± 6	-69	ph. plug	20	8.4x 1.1	12			94.05	Switchable omni/uni.
	CM-2S	Omni.	Eltrt.		Blk.	1k	20-20 ± 6	-68	ph. plug			10%			59.95	Stereo
PRIMO	CMU-503	Uni.	Cond.	Brass	Nickel	200*	30-20 ± 2.5	-50.8	**	20		3/4x5 1/2	5			*Balanced.
	P-88	Uni.	Dyn.	Brass	Nickel	250*	50-15 ± 2.5	-59	**	20		3/4x6 1/2	7			*Balanced.
	UD-876M	Uni.	Dyn.	Zinc, brass	Nickel	250*	80-14 ± 3	-56	**	20	phone	6 1/2	10 1/2			*Balanced.
	EMU-4520	Uni.	Elect.	Brass	Nickel	200*	30-15 ± 2.5	-55	**	17	phone	3/4x7 1/2	5 1/2			*Balanced.
	EMU-4516	Uni.	Elect.	Alum.	Nickel	200*	40-15 ± 2.5	-56		17	phone	8 1/2	9			*Balanced.
	UD-959	Uni.	Dyn.	Zinc	Silver	250*	60-14 ± 3.0	-56		20	phone	6 1/2	9 1/2			*Balanced.
	DM-1525	Gmni.	Dyn.		Nickel	200*	60-14 ± 3.0	-56		20	phone	7 1/2	9			*Balanced.

Now you can have Dual precision any way you like.

Every Dual, from the 1225 to the CS701, is designed to fulfill one basic concept: to provide more precision than you are ever likely to need.

Perhaps this is why more component owners—audio experts, hifi editors, record reviewers and readers of the music/equipment magazines—own Duals than any other turntable. These serious music lovers, whose investment in records typically exceeds their investment in equipment, prefer Dual for only one reason. Quality.

Until recently, Dual quality has been available only with fully automatic turntables with both single-play and multi-play facility. Now the choice is much broader. Of the seven Dual models, three are single-play only. Two of these are fully automatic; one is semi-automatic. Dual turntables also use all three types of drive systems: belt, rim and direct.

The way a tonearm is moved to and from the record is not critical. Nor is the type of drive system. What is critical is how faithfully the tonearm permits the stylus to follow the contours of the groove and how accurately and quietly the platter rotates.

If precision performance and reliability are of primary importance to you—as they should be—you'll find them in every Dual.

Dual 1225
\$139.95, less base



**...with the 1225,
the lowest priced Dual ... all the
turntable you may ever need.**

The Dual 1225 is a perfect example of Dual's basic concept: to build every Dual turntable with more precision than you are ever likely to need.

The 1225's vernier adjustable low-mass counterbalanced tonearm can track flawlessly at as low as one gram. Stylus pressure is applied exactly as in every Dual, around the vertical pivot and perpendicular to the groove, maintaining perfect balance in all planes. Anti-skating force is also applied exactly as in every Dual, with separate calibrations for conical, elliptical and CD-4 styli.

Other features the 1225 shares with all other Duals include pitch control variable over a 6% range (one semitone) and cue-control viscous-damped in both directions to prevent bounce. The powerful hi-torque motor maintains speed within 0.1% even when line voltage varies as much as 20%. The hefty 3¾ pound, 10½" diameter platter provides effective flywheel action to minimize the audible effect of any possible speed variation.

There are two other models in this series, each with additional refinements. The 1226, priced at \$169.95, has a one-piece, die-cast platter and a single-play spindle that rotates with the record. The 1228, priced at \$199.95, has—in addition to these—a tonearm mounted in a four-point gimbal suspension, synchronous motor, built-in illuminated strobe and adjustable stylus angle to provide perfect vertical tracking in both single and multi play.



Dual 1249
\$279.95, less base



Dual CS701,
\$400, including base and cover

**...with the new Dual 1249,
which will give you more reasons
than ever to own a Dual.**

The new 1249, successor to the 1229Q, provides every feature, innovation and refinement of that highly-acclaimed model, plus some new ones. The 8 $\frac{3}{4}$ " tubular tonearm pivots in a newly designed four-point gyroscopic gimbal, suspended within a rigid frame. In single play, the tonearm parallels the record to provide perfect tracking; in multi play, the Mode Selector lifts the entire tonearm to parallel the center of the stack. The tonearm can be set on the record manually or by using the viscous-damped cue-control or by simply pressing the automatic switch. In addition to single play and multiple play there is also the option of continuous repeat.

The dynamically-balanced cast platter and flywheel are driven by an 8-pole synchronous motor via a precision-ground belt. Pitch is variable over a 6% range and can be set to exact speed by means of an illuminated strobe, read directly off the rim of the platter.

A similar model, the 601, is available at lower cost (\$249.95), without multi-play facility. A third Dual in this series, the 510 (\$199.95) has a semi-automatic tonearm with a mechanical sensor that indicates when the tonearm is positioned precisely over the lead-in groove of a 12" or 7" record. At the end of play, the tonearm is automatically lifted by the cue-control and the motor shuts off.

...with the CS701, the quietest turntable ever made.

Independent test reports on the electronic direct-drive Dual CS701 have been extraordinary. One reason is that all reviewers acknowledge the CS701's performance to be superior to the measuring capabilities of test instruments. For example:

Hirsch-Houck Labs in Stereo Review found the wow level of the CS701 "Essentially at the residual level of our test record—about 0.03 per cent." So did Popular Electronics. The Feldman Lab Report in FM Guide was able to detect "no flutter whatsoever." Stereo & HiFi Times said "arm friction was lower than my capability to measure reliably."

It takes very advanced engineering to achieve this level of performance. For example: the motor's unique double field coil produces a perfectly consistent rotating field with no magnetic flux irregularities. Another example: two specially tuned mechanical anti-resonance filters located within the tonearm counterbalance absorb resonant energy that would otherwise transmit acoustical feedback to the stylus. The result: cleaner and smoother frequency response.

The reviewers also reached unequivocal conclusions about the CS701 performance. Note the absence of such qualifiers as "one of the" or "among the." For example: High Fidelity said: "...The Dual 701 has placed itself in the select group of products against which we must measure the performance of others." And the highly conservative English publication, HiFi News & Record Review: "The experience of listening to records of the highest quality on this turntable is not likely to be forgotten...you will never again be satisfied with anything less perfect."

United Audio Products, 120 So. Columbus Ave., Mt. Vernon, N.Y. 10553
Exclusive U.S. Distribution Agency for Dual



Microphones

(Continued from page 107)

MANUFACTURER	MODEL	Directional pattern	Operating principle	Case material	External finish	Impedance, ohms	Freq. resp., Hz-kHz ± 2 dB	EIA sensitivity, dBm	Mic connection	Cable length, ft.	Cable plug type	Dimensions, in.	Weight, oz.	Mounting method	Price, \$	NOTES
RADIO SHACK	Highball	Card.	Dyn.	Alum.		Multi	80-13		XLR	15	Not furn. phone			5/8	44.50	On/off swit.; pop filter.
	Super Card	Card.	Dyn.	Alum.	Alum.	600/50k	80-12		Amph	10				5/8	24.95	On/off swit.
	Card Electret	Card.	Elect.	Alum.	Alum.	600	30-15			10	phone			5/8	29.95	W. batt.
	Omni Electret	Omni.	Elect.	Alum.	Alum.	600	30-15			10	phone			5/8	24.95	W. batt.
	Lavalier Electret	Omni.	Elect.	Alum.	Alum.	600	20-12			10	phone	1/2x1			19.95	Tie clip, w. mercury batt.
SHURE	SM53	Card.	Dyn.	Alum.	Metal	150	70-16		Can.	20	Can.	7 1/4 x 1 1/2	8	*	171.00	*W. adaptor.
	SM58	Card.	Dyn.	Zinc	Gray	50/150	50-15		Can.	20	Can.	6 1/2 x 2	15	*	101.40	*W. adaptor.
	SM61	Omni.	Dyn.	Alum.	Metal	150	50-14		Can.	20	Can.	1 1/4 x 7	5 1/2	*	73.80	*W. adaptor.
	SM62	Card.	Dyn.	Alum.	Metal	150	100-10		Can.	20	Can.	1 1/2 x 5	4	*	84.00	*W. adaptor.
	565	Card.	Dyn.	Zinc	Chrome	25/200	50-15		Amph.	15	Amph.	2x6	10 1/2	*	72.60	*W. adaptor.
	548SD	Card.	Dyn.	Zinc	Chrome	25/200	40-15		Can.	15	Can.	1 1/2 x 6	9	*	80.40	*W. adaptor.
	545S	Card.	Dyn.	Zinc	Chrome	25/200	50-15		Amph.	15	Amph.	3 3/4 x 5	15	*	68.40	*W. adaptor.
	585SAV	bi-d	Dyn.	Zinc	Chrome	High	50-13		Amph.	15	Amph.	2x6 1/2	13 1/2	*	55.65	*W. adaptor; vol. contrl.
	300	bi-d	Ribb.	Zinc	Gray		40-15		Can.	20	Can.	1 1/2 x 9 1/2	16	1/2"	115.20	*W. adaptor.
330	Card.	Ribb.	Zinc	Gray		30-15		Can.	20	Can.	1 1/2 x 7 1/2	16 1/2	*	91.20	*W. adaptor.	
576	Omni	Dyn.	Zinc	Gray	50/150	40-20		Can.	15	Can.	3/4 x 6 1/4	7	*	134.40	*W. adaptor.	
589S	Card.	Dyn.	Alum.	Metal	150	90-13		Can.	15	Can.	1 1/2 x 7	12	*	51.00	*W. adaptor.	
SUPERSCOPE	EC-1	Omni.	Elect.	Alum.	Chrome	250	60-13 ± 3		Att.		Mini	0.7x4		Adap.	14.95	*Cable plugs: Rem: micro, mike: mini.
	EC-3	Uni.	Elect.	Alum.	Chrome	250	50-15 ± 3		Att.		Mini			Adap.	19.95	
	EC-35	Uni.	Elect.	Alum.	Chrome	250	50-15 ± 3		Att.		*			Adap.	24.95	
	EC-5	Uni.	Elect.	Alum.	Chrome	250	40-15 ± 3		Att.		Phn			Adap.	39.95	
	EC-9P	Uni.	Elect.	Alum.	Chrome	250	Music: 40-16 voice; 100-16 ± 3		Att.					Adap.	49.95	
	EC-12B	Uni.	Elect.	Alum.	Chrome	250	30-17 ± 3		Can.		Mini			Adap.	99.95	
	EC-15P	Omni.	Elect.	Alum.	Chrome	250	100-15 ± 3		Att.		Can.			Tie clip	39.95	
	Omni.	Elect.	Alum.	Chrome	250	70-16 ± 3		Att.					Tie clip	79.95		
TURNER	35	Omni.	Dyn.	Alum.	Gold paint	150/25k	50-12	-154	Atach	25	Not furn.	3x3/4	1 1/4	Lav.	51.00	Dual Z.
	500	Card.	Dyn.	Zinc alloy	Satin chrome	150/40k	40-15	-151	A4F	20	Not furn.	6 3/4 x 1 1/2	12	5/8 x 27	72.00	S500 w. rotary on/off swit.
	603H	Card.	Dyn.	Zinc alloy	Satin chrome w. blk.	40k	50-15	-151	A3F	20	Not furn.	6x1 1/4	14	5/8 x 27	60.00	603L, 150 ohm, \$57.00.
	45	Card.	Dyn.	Blk. cyclocac w. alum. head		Hi	100-13	-151	Atch.	20	phone	7x1 1/4	6	5/8 x 27	30.00	
	2300	Omni.	Dyn.	Steel chrome	Satin	40k	50-15	-151	A3F	20	Not furn.	6x1 1/4	8	5/8 x 27	60.00	2302, 150 ohm, \$60.00
TECHNICS BY PANASONIC	RP-3850E	Card.	Elect.	Metal	Metal	600	20-16		XLR	16	phone		7	5/8 x 27	149.95	FET amp. Sensitivity sw., lo-cut sw. Detach. win. scn.
	RP-3830E	Card.	Elect.	Metal	Metal	600	50-15		Swt. A3F Swt. A3F	16	phone		7	5/8 x 27	99.95	FET amp. Lo-cut sw. Detachable win screen.
	RP-3550E	Card.	Elect.	Metal	Metal	600	50-15			16	phone		6 1/2	5/8 x 27	79.95	FET amp. Fixed wind screen.
VIDAIRE	942	Card.	Dyn.	Alum.	Chrome	600/50k	80-15	-54/-72	Std	20	1/4 std	7 1/2	16	5/8 x 27	39.00	
	892D	Card.	Dyn.	Alum.	Chrome	600/50k	80-15	-54/-72	Std	20	1/4 std	7 1/2	16	5/8 x 27	44.00	
	855	Card.	Dyn.	Alum.	Chrome	600/50k	50-15	-54/-70	4 pin	20	1/4 std	8 1/2	16	5/8 x 27	58.00	
UHER	M136	Omni.	Dyn.			low	50-15	*							20.20	Unbal. 3/2 grd plug. *.32 mV/ μ bar
	M534	Card.	Dyn.			low	50-16	*							49.95	Shotgun-type atten. Low-noise. *.23 mV/ μ bar.
	M536	Dir.	Card.			low	100-14	*							102.95	Closeup mike. *.08 mV/ μ bar
	M537	Dir.	Dyn.	Metal			30-18	*							114.95	Bass attenuator. *.023 mV/ μ bar.
	M538	Card.	Dyn.	Metal			30-18	*							128.65	Sep. bass & treble. *.014 mV/ μ bar.
	M539	Omni.	Dyn.			low	40-17	*							117.80	Balanced, 1 2/3 gnd. *.02 mV/ μ bar.
	M640		Dyn.				70-15	*							60.70	Unbalanced, 3/2 gnd. *.02 mV/ μ bar. Mono/ stereo pairs.
	M822						50-15	*							83.10	Lavalier. *.011 mV/ μ bar.

The Column

Fred DeVan



Rising Sun: Yvonne Elliman
RSO SO-4808, stereo, \$6.98.

Rising Sun is an unabashedly lightweight album from a good, young singer who chooses to play it safe with this, her third. Best-known for her association with Eric Clapton (on his two last, nonsensical releases), what else can a girl do—but play it safe? Especially if she's riding high at the start of her career, has a solid voice with experience and strength from singing Mary in *Jesus Christ Superstar* for three years? What would you do?

This is a showcase for Yvonne's voice. She stands alone as a soloist in the safety of professional, standard arrangements of standard rock material. Seven good, diverse tunes, chosen with taste and delicacy, and all penned over 20 years ago, are here added to two of her own, which could be a real test for a lesser voice than hers. She delivers them all with casual ease. The arrangements let her voice carry the album, as they should. The idea works. This is a nice, safe album giving a glimpse of better things to come from Yvonne Elliman.

Sound: B+

Performance: B

Frampton: Peter Frampton
A&M SP-4512, stereo, \$6.98.

The music of Peter Frampton has long fascinated, with an inordinate eloquence that has remained, until now, illusive and unfulfilled. Frampton has easily been the equal of his associates, musically adroit, conceptually original, rhythmically stimulating, melodically alluring, just full of marvelous qualities and dripping with character. But, like most of his peers, he never brought it all together and kept it there, never really sustained it to a catharsis of his musical self. The best elements were strewn across his work, a little here and a little there. He seemed to be struggling against some unseen force. Maybe it just wasn't his time yet. He came so close on his last album, **Something's Happening**, A&M SP-3619, that one could have stopped looking for more from him right there and been satisfied. I was very satisfied with the disc, but there was still more to come.

It's here. It's simply called **Frampton!** It is pure Frampton. Except for the drums played by John Siomos, Fender bass aptly provided by An-

Super THE PROBLEM SOLVER



THE BGW 250B DOESN'T HAVE—

- Fuses
- Knobs
- Meters
- Current limiting
- Hum
- Noise
- Thumps
- High price

BUT, IT DOES HAVE—

- Enough muscle to drive 2-ohm loads (340-watts*)
- Absolute speaker protection (exclusive BGW SCR crowbar)
- Virtually unmeasurable distortion*
- Modular construction
- 12 rugged 150-watt output transistors
- High speed magnetic circuit breaker
- True op-amp front end
- Heavy 3/8" thick rack panel
- Totally enclosed heat sinks
- 660-square inches of efficient heat radiating surfaces
- Rugged steel chassis
- Mono-stereo switch

*Guaranteed specifications:

Stereo mode: 90-watts/channel into 8-ohms, 20-Hz-20-kHz with less than .1% total harmonic distortion (THD). 100-watts/channel into 4-ohms, 5-Hz-15-kHz with less than .15% THD.

Mono mode: 180-watts into 16-ohms, 20-Hz-20-kHz with less than .1% THD. 200-watts into 8-ohms, 5-Hz-15-kHz with less than .15% THD.

The perfect mate is our new model 202 stereo preamplifier featuring the industry's most accurate phono system—82-dB S/N, .01% THD, active 18-dB/OCT. Hi-Lo filters, studio type graphic controls. See all 6 BGW power amps and our new preamplifier at your local dealer.



in Canada...

BGW Systems
P.O. Box 3742
Beverly Hills
CA 90212
(213) 391-0320

Recrion, Limited
105 Denison St.
Markham, Ont.
(416) 495-0880

drew Bown, and Poli Palmer doing vibes on *The Crying Clown*, Frampton plays all the other instruments and does all the voices. He has shed his band and the conventional studio. He did this album on location at Clearwell Castle, Gloucestershire, England, with Ronnie Lane's mobile recording facility "Reels on Wheels." It was mixed down later at the Olympic studios. I mention this because the conditions under which this recording was created have as much to do with the music as they do with the sound.

Old English castles are a fantastic trip for contemporary people. Their massiveness and endurance triggers many feelings in whomever visits one. But to live and create in one must be the wild trip! By their very existence they inspire creation.

Philosophy aside, Frampton sings and plays with totally relaxed ease, yet with a carefully-planned delicacy and depth. The words, the songs, the music, and the album, are so fresh, so strong, so impeccably good that the disc is very hard to describe to anyone

but a Frampton watcher, and even he would only have a glimmer of what to expect. Frampton's **Frampton** is quite original, thoughtful as it is playful, and brims over with good taste and class.

Its sparse construction matches the deadly-accurate sonic picture. The sound is definitely that of the castle; amazing. Every song is fine, but *Day's Dawning*, *Show Me The Way*, and *One More Time* are stellar. Frampton's voice is superb, his solos are puckish perfection.

If you want to explore one of the finest examples of the rock idiom, get into **Frampton**. If you just want to sit and enjoy music that in its tender moments is very pretty and always interesting, listen to **Frampton**. If you just want to own one hell of a fine record album, buy a copy of **Frampton**.

Sound: A+ Performance: A+

We just made you an important part of our new speakers.

Ever wish you could add a little more rock to a pop tune? Or a bit more pizzaz to some jazz? It's easy with Jensen's all-new OPC speaker systems. Each comes with exclusive front-mounted Optimum Performance Controls that allow you to adjust speaker frequency response to any kind of music or mood. No matter what type of listening environment you're in.

One thing that never changes—the rich crystal-clear Jensen sound.

No matter how you set your OPC controls, you're going to hear sound quality you can't find in any comparably priced speaker systems. That's because inside we've placed features like

Flexair® woofer suspension for distortion-free bass. Sonodome® ultra tweeter for improved high frequency response. And much more.

Make Jensen OPC speakers a part of your system.

When you add these new Jensens to your new or existing component system, it's not only going to add quality to the sound. It's going to add a little bit of you.

See and hear the new Jensen OPC speakers for yourself. For a free catalog and listing of Jensen dealers in your area, write: Jensen Sound Laboratories, 4310 Trans World Road, Schiller Park, Illinois 60176.

JENSEN
SOUND LABORATORIES

Division of Pemcor, Inc.
Schiller Park, Illinois 60176



One Of These Nights: Eagles
Asylum 7E-1039, stereo, \$6.98.

The Eagles have all along been a formula group, but never previously has their music seemed so manufactured as it does on this disc. They seem doomed to make dull pap which reeks with style, but lacks content. They are, sad to say, one of numerous Asylum Records' hypes (along with Souther, Hillman, & Furay). The Eagles embody the style of music which Asylum stands for (i.e. that which follows Crosby, Stills, Nash, and Young) but they just don't have enough soul, writing ability or creative talent. With their first album they at least had the good sense to play music which had a hit-single immediacy, and co-write with Jackson Browne (who, with Tim Moore, is one of the few Asylum Records artists), but no longer. The Eagles' new album is a complacent product—it vaguely fits into the mold, it's moderately inoffensive, and it reeks of Los Angeles mock countryisms.

It's unfortunate that The Eagles weren't recognized as poseurs earlier, but no one called their bluff. If Charlie Pride is the Muddy Waters of the Seventies, The Eagles are the modern equivalent of Bill Haley. Their tunes are merely watered-down versions of country and western with abominable lyrics about such controversial subjects as young girls going out with rich old men (*Lyin' Eyes*) not to mention preposterous attempts at disco singles (the title track). One of the problems is that the record label itself has to preserve an image, as if Asylum's president were the artist and

his acts have to stay within the mold. But then again, if there wasn't someone there to tell The Eagles exactly what they were, I'm not sure that they'd know themselves. In interviews they boast of their awesome instrumental talents, but neither of the two lead guitarists is particularly awesome (just competent), and bragging about such nonentities seems the act of someone who knows not what his talents are. They actually do a banjo, fiddle, and symphony orchestra number, *Journey of the Sorcerer*, which may stand up as the most boring instrumental ever cut on a disc. The more you listen to *One Of These Nights*, the less you hear. When they first arrived on the scene I suspected they had nothing to say, but only a good way to say it. Now the group seems to have even lost their ability to churn out the mire. It's doubtful that even Eagles fans will like this album, and that certainly doesn't say much for their musical presence—but how can talent develop when it doesn't have a leg to stand on? *Jon Tiven*

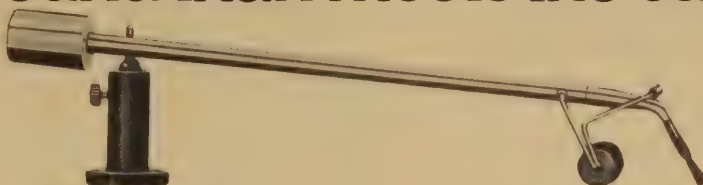
Sound: C- Performance: C

Cut The Cake: Average White Band
Atlantic SD-18140, stereo, \$6.98

Unfortunately, the music of the Seventies is more often built upon the primeval riff than on melodic content, and The Average White Band (though talented) is caught in the middle of things. They are capable musicians who work together extremely well, a fact which makes attacking them a difficult chore. There's nothing that you can put your finger on to say it's bad, nothing really objectionable about **Cut the Cake** other than its lack of variety. Nothing, that is, except that it's totally non-innovative, quite dull, and is merely Black music played quite well by a league of crackers who make light of their paleness.

It's in the tradition of great British rock to mimic American rhythm & blues. After all, weren't the Rolling Stones and the Beatles the greatest bands to ever come out of Britain, and all they did was imitate Chuck Berry, Bo Diddley, and the Coasters? Except for the fact that the Stones and the Beatles were great because they added a feel distinctly their own to what they borrowed from American Black music. Hence, although the Beatles and the Stones borrowed from American artists, they never actually sounded like those they copied. But it's impossible to distinguish the AWB from the various bands they copy

There's more to great sound than meets the ear.



When dust, dirt and static build up on your record, it can't possibly sound like it's supposed to sound. **Groov-Kleen®** is a specially designed component that removes dust and dirt, so you hear exactly what is recorded on your record — and nothing else.

An attractive chrome and steel armature, **Groov-Kleen®** mounts permanently on your unit. Its sable tracking brush and velvet roller lift dust and dirt out of record grooves and collect residue. All you have to do is sit and listen. And **Groov-Kleen®** also reduces stylus wear.

There's a **Groov-Kleen®** for every record player, manual or automatic. What's more, **Groov-Kleen®** has height and balance adjustments to insure that it can be used on any record without causing speed variation. So see your record or audio dealer and find out about **Groov-Kleen®**.

Remember, when there's more to a record than you've been hearing, give a listen with **Groov-Kleen®**.

Bib® Groov-Kleen®

Bib® Hi Fi Accessories 155 Michael Drive, Syosset, N.Y. 11791

Check No. 73 on Reader Service Card

FREE McIntosh CATALOG and FM DIRECTORY

Get all the newest and latest information on the new McIntosh Solid State equipment in the McIntosh catalog. In addition you will receive an FM station directory that covers all of North America.



MX 113

FM/FM STEREO - AM TUNER AND PREAMPLIFIER

SEND TODAY!

McIntosh Laboratory, Inc.
East Side Station P.O. Box 96
Binghamton, N.Y. 13904
Dept. 1

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

If you are in a hurry for your catalog please send the coupon to McIntosh.
For non rush service send the *Reader Service Card* to the magazine.

Check No. 38 on Reader Service Card

Thaedra

SERVO-LOOP PREAMPLIFIER

is here!

THE ULTIMATE
HAPPENS ONLY ONCE!!

BUILT IN SERVO CONTROLLED
HEAD AMP FOR MOVING COIL
CARTRIDGES **PLUS** REGULAR PHONO
WITH **NO** GRAIN. TAPE MON. AND COPY FOR
3 MACHINES. **5** POSITION LOW FREQUENCY
FILTER. **ALL** CONTROLS AND SWITCHES
ENVIRONMENTALLY PROOFED. DEPOSITED
THICK-FILM LEVEL AND TONE CONTROLS.

MORE, MORE, AND MORE!!

HEAR THAEDRA AT YOUR DEALER SOON!

\$799.00 DENVER & WEST COAST

\$809.00 EAST OF DENVER

GAS

THE GREAT AMERICAN SOUND COMPANY, INC.

8780 SHOREHAM DRIVE • WEST HOLLYWOOD, CA 90069

TELEPHONE: (213) 659-2486

Check No. 23 on Reader Service Card



Our new cartridges will turn your good record player into a great record player.

Perhaps you've tried to track your records at the lowest advertised setting for your elliptical stylus. In the hopes of optimizing performance and reducing record wear. But every footstep threatens to bounce the stylus out of the groove. And big crescendos are simply fuzzy. Should you get a better player? No. Get a better stylus.

We have a sensible new approach. A stylus shape that contacts more of the groove wall, to spread tracking force over a greater vertical area. The Shibata

stylus. It safely tracks your records at up to 2 grams while maintaining response to 45,000 Hz, offering great stereo separation, and *reducing* record wear... even compared with an elliptical stylus at less than a gram.

Put an Audio-Technica Dual Magnet* UNIVERSAL cartridge with genuine Shibata stylus in your good old record player today. It's a great combination for better sound today and tomorrow, and tomorrow.



UNIVERSAL™

*T.M. Audio-Technica. Dual Magnet cartridges are protected by U.S. Patent Nos. 3,720,796 & 3,761,647. Shibata stylus Patent No. 3,774,918.



audio-technica®

AUDIO-TECHNICA U.S., INC., Dept. 105A, 33 Shilawassee Ave., Fairlawn, Ohio 44313
Available in Canada from Superior Electronics, Inc.

Check No. 8 on Reader Service Card

—they sound exactly like the James Brown backup group or any of a thousand other anonymous r&b bands.

Perhaps the most amusing thing about the AWB is that they've inspired a bunch of imitations by both whites and blacks, due to their commercial success. Of course, groups such as the AWB cannot have lasting power, any more than Archie Bell and the Drells, for they're popular only as long as the dance they advertise remains chic in the discotheques. One can only hope that musicians as talented as these will soon play original music, that is learn to differentiate between playing *just* music and playing *their* music.

Jon Tiven

Sound: B+

Performance: D+

**The Original Soundtrack: 10CC
Mercury SRM-1 1029, stereo,
\$5.98**

10CC is one of the oddest recording groups ever formed: four young veterans of the British recording scene out to make progressive pop music, lacking any pretense of aesthetic aspirations. These are not four poor boys from the city—Graham Gouldman made money writing songs for the Yardbirds and Herman's Hermits, Eric Stewart led the Mindbenders for a while, and Lol Creme/Kevin Godley had a hit single in America under the name of Hotlegs a few years back. With these backgrounds, it's no wonder 10CC puts out almost the most polished records around—impeccable vocal arrangements (their hit single *I'm Not In Love* has two hundred voices overdubbed, audio wizardry that none (save Queen and the Beatles) can touch, along with top-drawer playing.

Well-crafted music is what was expected from 10CC, and at first that's all that was forthcoming. Their first two albums were very intelligent, though cold-shouldered discs, outstandingly pleasing without letting the listener get too close. This third record continues their pretty pop music and seemingly-silly lyrics (*Life Is A Minestrone*). They delight in MOR (middle of the road) sound in songs like *The Film Of My Love* and *I'm Not In Love* as long as

they don't have to seriously approach things close to their hearts.

This is an odd pose for a rock group to take—keep the listener at arm's length, instead of bringing him closer to the group. If 10CC were more instrumentally-oriented, it would be easier to pass over the lyrics, but they are primarily a vocal group. Trying to ignore the words of *Une Nuit A Paris* is like listening to the guitar playing on a Beach Boys record—you might be able to do it, but you're missing the point if you do.

10CC is brilliant musically and bizzare word-wise. Their music has a very jagged edge, for all its smooth touches, and has been compared to the Mothers of Invention. This is valid only in that both groups have very separate music and lyrics. One might expect this dichotomy would lend the group a dual appeal—there will be those who listen casually and those avid fans who listen closely. Time alone will tell whether such conclusions are valid, but with a single hitting solidly on the American charts and this album following, it's almost certain that 10CC will be a major force in the musical world in the future. It will be interesting to see whether they rely on their commercial appeal or on their eccentricities.

Jon Tiven

Sound: A Performance: A-

Sergio Mendez: Sergio Mendez *Elektra EQ 1027*, CD-4, \$7.98.

Middle-of-road (MOR) pop music keeps on getting better; the extremes are getting soft. The bad taste boys mop up the gutter of hard-heavy metal rock. The neo-avant-garde jazz rockers develop a stylistic and rhythmic sameness. But thanks to the likes of Sergio Mendez dumb, pedestrian MOR keeps getting better. Admit it or not, there is a little MOR in all of us. Sergio reaches into the best of the rock-and-roll world. Mixing tunes by Stevie Wonder, George Harrison, Donny Hathaway, Tom Bell and Linda Creed, he whips up a fresh summer salad of an album. His sunshine-bright and fresh approach is best heard on Leon Ware and Pam Sawyer's *If I Ever Lose This Heaven* and Donny's under-

Get your new Radio Shack catalog at one of our 3500 stores today!

FREE! 1976 EDITION
OVER 2000 PRODUCTS
EXCLUSIVES ON EVERY PAGE
BEAUTIFUL FULL COLOR
164 pages of the finest
in home and hobby
electronics



**Save! Our Prices
Are Within 1% of
Our July, 1974 Prices!**

**Hi-Fi • CB • Kits • Parts
Phonos • Recorders • Tape
Radios • Antennas • Tubes
Auto Tuneup • Much More**

See what's *really* new. It's the most-wanted, most popular catalog in electronics, and loaded with our own exclusive nationally advertised brands: Realistic, Micronta, Archer, Science Fair, others — you've seen them advertised on TV. Come in for your free copy today!

AVAILABLE BY MAIL TOO —
JUST SEND US THIS COUPON

To: **Radio Shack** 561
P.O. Box 1052, Ft. Worth, TX 76101
Rush me your 1976 catalog
(Please Print)
Name _____ Apt. # _____
Street _____
City _____
State _____ ZIP _____

Check No. 52 on Reader Service Card

Impressive! Tandberg TCD-310



Our stereo cassette deck gives you a signal-to-noise ratio of 65 dB, IEC weighted with CrO₂ and Dolby.* Other features: Three motors. Expanded range peak reading meters. Extended frequency response, constant speed, inaudible wow and flutter. And guaranteed performance.

We're our only competitor

TANDBERG OF AMERICA INC.

Tandberg of America, Inc.
Labriola Court
Armonk, New York 10504

I want to hear more!
Please send free brochure on TCD-310 to

Name _____

Address _____

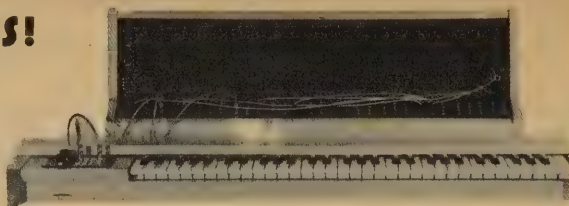
City _____

State _____ Zip _____

A1031

ARIES - KITS!

ARIES INCORPORATED
119 FOSTER STREET
PEABODY MASS
01960
(617-532-0450)



A NEW ELECTRONIC MUSIC SYNTHESIZER KIT

- *Standard 1 Volt/Octave, 10 Volt range scale factor
- *Fully compatible with the products of other manufacturers
- *Five octave, two voice high quality keyboard
- *Fully modular, professional construction
- *Priced at a fraction of other units
- *Available in kit or wired form
- *WRITE, OR CHECK READER REPLY FORM FOR INFORMATION ON THIS, AND OTHER ARIES ELECTRONIC KITS

Check No. 4 on Reader Service Card

Look for more from Lissen

You deserve the best, and Lissen will exceed even your highest expectations.

Here are some outstanding features of the **L-320**

• EYE APPEAL

Walnut cabinet in hand-rubbed Danish oil finish to complement your furniture group.

• HONEST LISTENING

3-way speaker, 12" woofer, horn mid-range, horn tweeter, mid-range/hi-range excellence.

• DOMESTIC COMPONENTS

• PRICED COMPETITIVELY



LISSEN

P.O. Box 583 Renton, Washington 98055 (206) 235-1222
Check No. 32 on Reader Service Card

We've got the solution!



**It's PRC-1
by tracker.**

Tracker has developed the most advanced, most complete record care kit for cleaning today's modern vinyl recordings.

An improvement over older cleaning methods, TRACKER PRC-1 is an actual "engineered electron exchange system" that works to satisfy three critical requirements of modern record care:

- A safe, yet potent cleaning agent dissolves grease while holding dirt in suspension to be swept away by record brush.
- Builds a conductive electron path between record surface and record brush eliminating contamination caused by static.
- Microscopically treats record surface to minimize future static.

Audio industry pros us PRC-1. Join them and start your TRACKER PRC-1 record maintenance program now.

Easy-to-use kit comes complete with cleaning agent, spray applicator, and preener.

**tracker
tracker
tracker**
audio care products



recorded masterpiece, *Someday We'll All Be Free*. Mendez' skill with the pen shows in these flawless arrangements, exquisitely performed. Bonnie Bowden and Sondra Catton's vocal beauty leaves nothing to be desired. Every cut is just fine in every way. Musical, exciting, vital, and just oozing class.

The stereo version is superb, while the CD-4 version is fantastic. The quadrasonics are part of the musical structure, and it's apparent that the arrangements were written with quadrasonics in mind. The discrete system shines here.

But alas, nothing is perfect in this world, and this CD-4 disc is no exception. Everything reaches near-perfection except the timbre of the low-frequency percussion. These notes sound very dry and mechanical. It's definitely a processing problem, but not a very big one. Just one to my nit-picking ears.

Get the CD-4 version nevertheless. Played back in stereo, it and the stereo version will sound equal. Demodulated for CD-4 you gain a lot, lose only a little.

Sound: A+

Performance: A+

Five-a-Side: Ace

Anchor ANCL-2001, stereo, \$6.98.

Just like a deck of playing cards: plasticized and lubricated, with all the corners rounded off. Prepared so they never stick together, never mar your fingers, they are waterproofed and barely textured. So goes this band! Well, Aces are never wild cards. I don't care if *How Long* is a hit song. Except for that cut, this album needs a good professional shuffle and a new deal. If they do another album, it has to be better than this. Judging from this, their current success with one tune is a game of solitaire!

Trumps?

Sound: D

Performance: D

There's One In Every Crowd: Eric Clapton

RSO QD-4806, CD-4, \$6.98.

This record is dry, dead, lackluster, a mockery. It's raucously bland folde-rol, expertly mixed in CD-4. The people responsible for this album are professional no matter what music they are processing. This is a flawless recording of the lamest trash a major rock artist has tried to fob off on his followers for a long time. Follow this with a Bowie album. *Anything* old or-ange hair has done is better. Clapton and Mick Ronson get my vote for couple of the month. Blaaaah!

Sound: B

Performance: ?

A Canadian product sold nationally in Canada, USA, Australia, Japan, and other countries throughout the world.

Check No. 72 on Reader Service Card

Classical Reviews

Edward Tatnall Canby

Tomita—Pictures at an Exhibition (Mussorgsky). RCA ARD1 0838, CD-4 quadraphonic, \$6.98.

Here is that Moog-genius Tomita again, he of the now famous **Snowflakes are Dancing**, and this time he's unbeatable—at least through side 1. Side 2 gets a bit out of hand and into Moogitis.

The first Tomita album was made up of Moogified works by Debussy and has been a fab semi-pop, semi-classical success. As noted in my recent review, a minority of Debussy lovers (not necessarily Moog haters) will find it much too near the schlock music category and pretty much of a travesty upon Debussy's polished and economical piano music. Even so, Tomita's extraordinary facility with the Moog was plenty clear enough. All he needed was the right music, and definitely *not* more Debussy. (At their present stage of musical Westernization, the Japanese have not really learned to appreciate the subtleties as between one Western style and another, which is surely understandable. If they perform, say, Faure's *Requiem* in the style of Tchaikovsky—see recent SQ recording—then Debussy, he of the steely, delicate piano colors, can just as easily get the fulsome, overblown treatment which is now all the rage in Japan. Tomita here merely reflects a legitimate phase of his country's music making.)

So—here he has the right music. The Mussorgsky **Pictures** is not known from the vague piano original (in several tentative versions) but via Ravel's masterly orchestration, which saw the possibilities for brilliant coloristic drama on a sprawling big scale that the piano version hid. What Ravel's genius for orchestration did to the music, Tomita's for the Moog does again, at moments as superbly as Ravel himself—although alas, not throughout. Ravel is by far the more disciplined musical architect; Tomita gets wallowed down in his own trick effects, losing the musical tension and continuity that Ravel never for a moment forgot.

Side 1, though, is simply superb because for that long Tomita remains disciplined, as well as imaginative and brilliant. Such amazing and easy

sounds, in such excellent CD-4 distribution! Everything from massed strings and organs and brass choirs and just massed Moog, to whole college glee clubs (simulated), an un-

canny solo human whistle that makes you turn right around to find its source, and a complementary fat little man (as I see him) who must have been a miniature pot-bellied wres-

TRACER...
"It just might be perfection!"

What are the characteristics of the perfect loudspeaker system? 1. Linear and efficient response. 2. Absolute absence of coloration and distortion. 3. Unexcelled power handling capabilities. 4. Perfect transient response. 5. Ultra wide dispersion.

Finding a speaker system with all of these characteristics has been impossible. Impossible, that is, until BML introduced Tracer - the line of loudspeakers that has fulfilled this impossible dream.

Tracers utilize the most advanced techniques in speaker design . . . dual phase coupling, (our amplitude modulating transmission line) . . . solid state tweeters that do *not* have the harsh, peaky effect found in other systems . . . crossover elimination, not even a capacitor, and *no* tweeter level control . . . no insertion loss and no phase distortion.

Treat your ear to Tracer's auditory excellence! Perfection? They just might be!

BML Electronics, Inc.
Acoustics Division

P.O. Box 711
Wheeling IL 60090



Tracer I - \$112.00

(AC 312) 271-7755

Dealer
inquiries
invited



Tracer II - \$149.95

THE STR GAMMA

AN EXPERTS POINT OF VIEW:

"Certain characteristics of air-suspension or acoustic suspension loudspeaker systems have always been considered as irrevocably linked with that form of enclosure design. Chiefly, air suspension systems have been noted for low efficiency—or the need for large amounts of audio amplifier input power for reasonably loud sound output. It has been axiomatically stated that one 'trades off' efficiency for small enclosure size and good bass reproduction in 'bookshelf speakers.' Well, the new Gamma speaker system from the people at STR represents a notable departure from this generalization. It is very efficient and is a sealed enclosure design too."

STR recommends a minimum power input for the Gamma of 10 watts and a maximum continuous power input of 50 watts. Based upon our sensitivity measurements of this unit, we would agree with the recommended minimum, for, in fact, with 1 watt of white noise applied, sound pressure level measured at a distance of 1 meter was an incredible 93.5 dB—the kind of sound levels you would expect to achieve with the more efficient examples of ported or ducted enclosures.

Good stereo imaging at any point in the listening room all the way up to 10kHz.

Furthermore, with the previously stated efficiency of this system, using a 50 watt per channel amplifier should enable listeners to reach maximum sound pressure levels of around 111 dB per speaker system, or about 114 dB in a stereo arrangement. That's a lot of sound from a small bookshelf enclosure and should satisfy the needs of most rock enthusiasts as well as those of listeners to less extreme kinds of musical fare.

We think that at its modest price, the Gamma will be a welcome and profitable addition to STR's respected line of speaker systems and suggest you listen to a pair."

LEN FELDMAN
FM GUIDE JUNE 1975



SPECIFICATIONS

DIMENSIONS (inches; specify H, W, D)
H—23 7/8" W—12 1/2" D—15"

WEIGHT

431 lbs.

GENERIC CLASS or LOADING PRINCIPAL

Acoustic Susp.

DRIVERS USED (no. and description)

1 each 10" woofer, 1 phenolic midrange, 1 piezo-electric tweeter

CROSSOVER FREQUENCIES

1500 Hz, 10,000 Hz

CONTROLS

Tweeter level control

RATED IMPEDANCE

8 Ohms

MIN. RECOMMENDED DRIVING POWER

5 Watts RMS

MAX POWER HANDLING CAPABILITY

75 Watts RMS

RATED RESPONSE (indicate \pm dB and dB/SPL reference level)

37 - 21,000 \pm 3 dB at 94 dB

REMARKS OR COMMENTS

Fuse protected, 5 year warranty

STR GAMMA, PRODUCT OF STR INC.
3000 ORANGE GROVE AVE.
NORTH HIGHLANDS, CA 95660

Check No. 69 on Reader Service Card

tlar—he mumbles along on the tunes under his breath, right close to you, sliding outrageously up to each note, wobbling unmercifully as though after plenty of warm saki. Charmingly done. And the *Ballet of the Unborn Chickens!* Ravel's is a cackling delight. Tomita's is absolutely hysterical, if, I must admit, with a bit of Spike Jones in it. Too bad side 2 doesn't stand up. The grand finale degenerates into grandiose sound effects, losing all musical shape.

P.S. The whistler and the little fat man are, I suspect, the very same Moog configuration, applied to low and high registers. That's the genius of it.

Berg: Lulu Suite. R. Strauss: Salomé, final scene. Anja Silja; Vienna Philharmonic, Christoph von Dohnanyi. **London OS 26397**, stereo, \$6.98.

Time does fly. It is so easy to think that the sound and impact of a modern composer is the same today as it was yesterday—and yet ...! Here are two excellent samples. For most middle-aged record collectors, Alban Berg still seems like one of those wild 12-tone modernists and his unfinished opera *Lulu* something in the upper brackets of the esoteric. Yet how pleasantly old-fashioned, in spite of its 12-tonedness, is this *Suite*, assembled by Berg himself in 1934 when the opera still had only a fragmented third act (which was never filled out). As you might say, this *Lulu* couldn't hurt a fly—not via today's ears.

What has always seemed to me clear in Berg's music is its human directness, the real melodic quality and the utterly simple emotions—simple, that is, in a person-to-person way. The word *winsome* comes to mind, despite the fact that even though Berg's subjects tend to be horrifying. No matter. It is always a human horror. And the same for the enormous technical complexities of his composing, including the backwards playing, from finish to start, that occurs in this *Suite* as in the earlier *Lyric Suite* for strong quartet. All these things can be ignored, to choice; the music speaks easily enough on its own. And what we hear, today is a mystical late Romanticism, straight out of the old Viennese elegance and of a piece with it in its final decline. Lovely.

Strange—Strauss, too, for an earlier generation, was the screaming modernist. Not for me nor for you; but the 1905 impression of this chilling music must have been 10 times more hor-

Realistic STA-225
Stereo Receiver
About \$400

Who's #1 in audio equipment?

Three famous national component brands, each with fine equipment at all the traditional price points, each with fine magazine ratings and lots of customers. Naturally we at Radio Shack like to think Realistic* is top dog. Our reasoning goes like this:

Realistic has over 3500 stores—the entire worldwide Radio Shack system—and 21 years of manufacturing experience. Realistic has exclusive Glide-Path* and Auto-Magic* controls. An audio consultant named Arthur Fiedler. Service like no tomorrow. And prices like yesterday. Maybe a better question is who's #2?

Radio Shack

Great sound since 1923

Over 3500 Stores/Dealers in the USA, Canada, England, Australia, Belgium, Germany, Holland
Check No. 77 on Reader Service Card Registered Trademark

rifying than today's thrill/chill films are when the violence erupts and the blood and guts spill, Salomé singing to John the Baptist's severed head on a tray! What a scene for an old-world opera. For this chilling reason, Strauss and **Salomé** seem in a way more modern now than the technically much more advanced **Lulu** music of 30 years later. Dissonance isn't all there is to modernity.

In the Strauss, Anja Silja's voice is perfection, if maybe a bit lower in sheer voltage than some earlier Salomé sopranos. And London's close-up recording is proper for music in which the solo voice is definitely center-stage from one end of the recording to the other—after all, this non-visible Salomé must make up for the traditionally seductive stage presence of the "live" Salomé and the visually horrifying revelation of the severed head. On the other hand, in the Berg **Lulu** music, the soprano appears only briefly, twice, and not for many minutes after the opening. London thus was unwise to use the same solo-type close-up recording here. When the voice suddenly appears, so close and loud, the shock is unmusical and false to the drama. After so much orchestral sound, at a pleasing and imaginative distance, it would have been better to bring in the soprano as an added orchestral instrument, back and further away, related to the already-established sense of space.

Orff: Carmina Burana. Cleveland Orchestra Chorus and Boys Choir, soloists, Cleveland Orch., Thomas. **Columbia MQ 33172, SQ** quadraphonic, \$6.98.

Columbia has managed to get this disc relatively high into the pop charts—howcome? The well-known and now rather elderly show piece has what it takes, all right. Fabulous big sounds, a scintillating orchestra and lots of trick-chorus sounds plus solos—this for the hi-fi frat. More than that, though, there is the characteristic pop emphasis on hard rhythms and repetition, based on the simplest of low-brow harmonies, to match the least subtle rock music. It's all outward drama and inward emptiness; you can swallow it with your ears like so much cola-drink (Oh no, I'm not quoting trade marks ...) and yet, simultaneously pat yourself on the back for enjoying (a) "classical" music and (b) modern. No wonder.

I heard this at an ill-advised press

launching (well, aesthetically ill-advised, anyhow) where Columbia set up thousands of bucks in quadraphonic equipment on a ballroom floor, then served drinks to the assembled audience. There was a respectful silence for maybe 30 seconds as the music began; then the cocktail buzz began, and in minutes flat drowned out everything, unless you stood a foot from one of the speakers. If I had been at the controls, I would have quietly faded the thing out after five min-

utes—and nobody ever would have noticed. Not so! Columbia persisted to the end, drinks or no. And note well, this was from master tapes, discrete—not even the SQ mix-down. So I suppose they felt they had to. Worse, the soloists and the conductor were on hand, to hear their efforts loudly ignored. I stood next to Michael Tilson Thomas, in white jeans and tennis shoes, watching him "conduct" the fragments that were audible to him, over the general uproar. I

Soundcraftsmen THE PERFECT PRE-AMP



FOR THE GREAT NEW SUPER POWER AMPS!

For a SUPER SYSTEM, match the 2217 with any of these TRUE "State-of-the-Art" amps—

• PHASE LINEAR • SAE • CROWN • DYNACO • AUDIO RESEARCH • CITATION •
• ESS • MARANTZ • SONY • KENWOOD • BOSE • QUATRE • BGW •

"FANTASTIC! I CAN HARDLY BELIEVE MY EARS... VERY VERSATILE & CLEAN-SOUNDING AND I REALLY LIKE THE SWITCHABLE PATCHING."

SPECIAL FEATURES

- ALL PUSHBUTTONS INTERLOCKED to prevent inadvertent program destruction • DISCRETE-OCTAVE EQUALIZATION CONTROL of ten octaves on each channel, +12db each octave • FULL-SPECTRUM LEVEL CONTROL for each channel • AUTOMATIC CONTINUOUS MONITORING by light-emitting diodes for visual warning of overload in output circuits • VISUAL ZERO-GAIN EQUALIZATION BALANCING on music, white noise or pink noise • SELECTION OF TEST LITES on or off • TAPE DUBBING BETWEEN TWO MACHINES, with optional simultaneous equalizing and monitoring • DOUBLE-DUBBING into two recorders simultaneously • SEPARATE SYSTEM-SELECTION enables full use of all other functions during the dubbing operation • LINE OR TAPE equalization selector • AUTOMATIC EQUALIZER-DEFEAT when line or tape equalizer is not in use • FRONT PANEL TAPE input-output jacks for easy 2nd and 3rd tape recorder hookup access • TAPE MONITORING of either tape at any time • TWO stereo headphone jacks • MONO SELECTOR for left, right or both channels to both outputs • REVERSE-STEREO mode • TWO low-level phono inputs • FOUR independent phono preamps • SIX A/C outlets, 4 switched, 2 unswitched • ELECTRO-PLATED FERROUS CHASSIS—(eight sections)—provides optimum shielding to minimize magnetic field-coupling • SINGLE-POINT system ground connector minimizes ground-loops • TWO REGULATED power supplies

Soundcraftsmen EQUALIZERS

NOW YOU CAN MAKE YOUR SYSTEM SOUND EXACTLY THE WAY YOU WANT IT TO SOUND!

In a few minutes, YOU can accurately "tune" the frequency response of YOUR stereo system and room environment to a flat ± 2 dB! All you need are YOUR OWN EARS and the Soundcraftsmen Equalizer (WITH ITS STEP-BY-STEP INSTRUCTION RECORD) to transform any stereo system and room environment into an acoustically-perfect concert hall. Or, to provide any special acoustic effects you desire! The Soundcraftsmen Equalizer enables YOU to instantly compensate for frequency response variations, IN SYSTEM AND ROOM.



GUARANTEED to enhance and improve any fine system!

Just plug 2 cables into your receiver's tape monitor jacks, and you are ready to enjoy a new experience in musical enjoyment!

2212	Illustrated above ...	\$349.50
20-12	Same as 2212, except no L.E.D.'s, no Tape Equalize on front	\$299.50

Both models include cabinet or rack mounts.

GUARANTEED SPECIFICATIONS

FREQ. RESPONSE — Hi-level: $\pm 1/2$ db, 5 Hz to 100 kHz
FREQ. RESPONSE — Phone: $\pm 1/2$ db, 20 Hz to 20 kHz
THD: less than .05% at 1 volt (Typ. .01% at 1 volt)
IM: less than .05% at 1 volt (Typ. .01% at 1 volt)
PHONO INPUT CAPABILITY: 100mv
SIGNAL-TO-NOISE — Hi-level: 100 db below full output
SIGNAL-TO-NOISE — Phone: 84 db below a 10mv input
SIGNAL-TO-NOISE — Equalizer: 90 db below a 1 volt input
GAIN — Phono: 53 db
GAIN — Hi-level: 21 db
OUTPUT IMPEDANCE: 600 ohms
EQUALIZER LEVEL: Zero gain controls for left and right continuously variable, for unity gain compensation
EQUALIZER RANGE: 12 db boost and 12 db cut, each octave at 30, 60, 120, 240, 480, 960, 1920, 3940, 7680 and 15,360 Hz
MAX. OUTPUT SIGNAL: Variable master volume control allows adjustment of optimum output to match amplifier
GOLD SWITCHES: All contacts are gold plated for low noise, long life, and resistance to oxidation and corrosion
CIRCUIT BOARDS: Military grade G-10 glass epoxy
RESISTORS: Low-noise selected carbon-film
CABINET SIZE: $7\frac{1}{4}'' \times 20'' \times 11\frac{1}{4}''$ deep
SHIPPING WEIGHT: 28 lbs
MADE IN U.S.A. includes cabinet or rack mounts.

PE2217 — \$499.50

FREE!

THE "WHYS AND HOWS OF EQUALIZATION," an easy to understand explanation of the relationship of acoustics to your environment. This 8 page booklet also contains many unique ideas on "How the Soundcraftsmen Equalizer can measurably enhance your listening pleasure." "How typical room problems are eliminated by Equalization," and a "10-point self-evaluation Equalization Evaluation Check-List."

Soundcraftsmen
1721 NEWPORT CIRCLE, SANTA ANA, CA 92705

didn't even dare look when the soloists' parts came on and were totally lost. Just embarrassing, I thought. Not the listeners' fault at all. Columbia asked for it.

So now—playing the record where it belongs, in my home, I hear it for the first time. Not bad from any viewpoint; just rather thoroughly American in tone, with its American chorus and very un-German solo voices. Why not? It isn't a piece one can argue about for very long except in terms of mechanical accuracy and rhythmic

drive—this one has enough. And it surrounds, with the expected large ambience. It is also cut loud, à la pop. Probably a shrewd idea, all in all.

Stravinsky: *Petrouchka* (Complete original version). London Philharmonic, Haitink. **Philips 6500 458**, stereo, \$7.98.

Stravinsky: *Firebird* (complete). London Symphony, Antal Dorato. **Mercury Golden Import SRI 75058**, stereo, \$6.98.

Please don't pass this on to a friend.

Almost no one knows Hartley speakers and we'd like to keep it that way.



Hartley Products Corporation

56 North Summit Street, Tenafly, New Jersey 07670

(201) 871-3442

Here's a fascinating pair of discs on a number of counts. The two early Stravinsky ballet scores, both familiar for many decades in "concert suite" arrangements, are here presented in the considerably longer versions for the actual dancing, with a lot of music that for some listeners will be new and surprising. Also, one of these is Philips' revival of the once-definitive Mercury stereo recordings (following on the definitive monos, also in this series); whereas the other disc is Philips' latest stereo recording, an instructive comparison.

As for the music, both works, as I have noted before, seem much more modern in their complete versions than in the suite format. This is surely because both were characteristically youthful landmarks, ultra-modern and at the same time out of tradition—which was as it should have been. The derived concert suites emphasized the more traditional Romantic-style tunes, especially in *Firebird*—and the older conductors, for 30 years, went to town on this aspect until both works became staples of normal concert and recorded fare. But in both, especially in the transitional passages between the major ballet scenes, the ultra-modern sound of c. 1910 was very much in evidence and can be brought forth easily enough today by a so-minded conductor. In Dorati's Mercury *Firebird* we have the extreme; he seems to go out of his way to de-emphasize the big, old, familiar tunes with fast tempi and studied underplaying—the very tunes which Stokowski and Koussevitsky & Co. wallowed in! The more dissonant and modern transitions Dorati carefully brings out in full modern array. A sort of reverse-prejudice. I like the old tunes, and so surely will you. They are indeed Romantic! And now, in the 70s, it's quite safe to play them with Romantic fervor.

As for Haitink, the solid yet dynamic Dutchman, he hits a perfect mean in his *Petrouchka*, perhaps a bit on the stolid side in the more hysterical sequences when the puppet *Petrouchka* is being chased and, later, murdered.

As for sound, the Mercury, which I played first, seemed marvelous to me, just as it was when new. Done, if I remember, with simple two-mike technique, pure as the driven snow. But only seconds of the newer Philips sound and I knew *this* was a new ballgame altogether. Such an opening-up, a widening-out, a smoothing of rough edges, such a limpid clarity! Enough said. Try for yourself. The art of recording: it's still on the advance.

Jazz & Blues

Basie's Best: Count Basie.

Olympic Gold Medal 7121, mono, \$4.98.

The recent bonanza of commercially-available material that was previously restricted to a few private jazz collections has expanded the universe of the jazz connoisseur, particularly the Swing Era and big band aficionado. Filling up record store jazz bins are a wide variety of micro-groove issues of rarities from the Thirties, Forties, and Fifties—test pressings, private acetates, alternate takes, airshots, and film soundtracks—memorabilia that supplement the standard studio recordings of important jazz artists.

Olympic, a semi-budget label out of the Pickwick complex, appears to have obtained some splendid Count Basie broadcasts from the late Thirties, recorded off the air from Frank Dailey's Meadowbrook in Cedar Grove, New Jersey, and from Harlem's famed Savoy ballroom. These broadcasts were originally issued on the Danish Collectors Classics label and they have been floating around Europe for several years. While their sound quality leaves much to be desired, musically speaking, they are more inspired than even the best of studio-recorded Basie material.

What comes through, despite the muddy, low-fi sound, is the rhythmic pulse of the great Basie band, the controlled drive and ever-flowing beat of the rhythm section most consider the Swing Era's finest. Indeed, **Basie's Best** showcases, as never before, the utter relaxation of the Basie ensemble, and the supple, rhythmic momentum of its great soloists.

Side One opens with a six-minute *One O'Clock Jump* which is classic Basie in the uncluttered strength of a live performance showing how the band could develop to a smashing climax when unfettered by the then-customary time limitation of three minutes dictated by the 10-in., 78 rpm record. An anatomy of this particular *One O'Clock Jump*, possibly one of the greatest swing performances by any band is in order: The Count kicks things off with striding Walleresque phrases, followed by tenor man Herschel Evans who begins his solo under the final bar of Basie's piano,

then dances gracefully for a superb 32 bars. Benny Morton is next with a punchy trombone chorus backed by relaxed riffing saxes, then Lester Young plays his variation on the sax

section riffs, his fluid sound floating over the ensemble as he develops his own melody. Trumpeter Buck Clayton follows, drawing on Lester's statement while the saxophones riff away

Feedback. Now it puts back the sound you've been missing.

Until recently, there was a substantial amount of distortion inherent in all loudspeakers.

As specialists in components for the professional and the serious audiophile, we were determined to do something about this. And now we're pleased to introduce the result of this determination—the C/M Model 45 Servosound Feedback System.

DETECTS AND CORRECTS

Designed to incorporate the principle of negative feedback, our remarkable new floor-standing three-way Model 45 actually detects potential distortion and corrects it.

Here's how. A built-in servo-sensing network, designed as a theoretically perfect speaker, compares the Model 45's mechanical output with the amplifier's electrical input. The servo network then sends the amplifier a sufficient correcting voltage to make the Model 45 virtually distortion-free.¹

SEPARATES "THUMPS" FROM "PLUNKS"

You get a sound with a clarity and definition you may not have believed possible. You'll even be able to distinguish between the "thump" of a bass drum and the "plunk" of a bass violin.

What's more, we haven't just settled for a speaker response with almost no distortion.

We've also improved the performance in other ways.

Our dual-cabinet design, for example, permits us to put our 15" woofer in the type of geometric environment that's long been recommended—namely, a cube-shaped cabinet of its own. And the two tweeters that flank the midrange driver in the other cabinet are arrayed at 30°

angles, for greater horizontal dispersion.

In addition, our built-in room controls enable you to compensate for the acoustics and size of your room.

If your dealer doesn't yet carry the C/M Model 45 Servosound Feedback System, just drop a line to C/M Laboratories, 327 Connecticut Avenue, Norwalk, Connecticut 06854. We'll not only mail you additional information on the Model 45, but, if you wish, we'll arrange a demonstration for you at a dealer in your area. (No obligation, of course.)

Hear C/M's Model 45 soon.

And then move ahead to feedback—at its finest.

C/M LABORATORIES
EXCEPTIONAL COMPONENTS FOR THE EXCEPTIONAL EAR

¹ For a more detailed explanation of closed-loop servomechanisms, see *Servomechanism and Regulating System Design* by H. Chestnut and R. W. Mayer, published by John Wiley & Sons.

² We're able to just about eliminate harmonic, modulation, amplitude, phase, bandwidth and dynamic range distortion.

Incomparable. Tandberg TR-2075



The best was not good enough. So we re-invented the stereo receiver. TR-2075 combines a sensitive tuner and pre-amp with an extremely powerful amplifier—all on one chassis. Result: fantastic performance that even more expensive, separate chassis components cannot beat!

We're our only competitor

TANDBERG OF
AMERICA INC.

Tandberg of America, Inc.
Labriola Court
Armonk, New York 10504

I want to hear more!
Please send free booklet on TR-2075 to

Name _____

Address _____

City _____

State _____ Zip _____

A1020

in a typical Basie-band chorus. Then the pianist and his incredible rhythm section (Freddie Green, guitar; Jo Jones, drums and Walter Page, bass) groove for 16 bars, setting the perfect tempo for the well-known all-hands rideout.

The rest of the first side is almost as good—*Study in Brown* kicks at medium tempo, and Larry Clinton's catchy opus was never played with more swinging spontaneity; there are again authoritative solos by tenormen Evans and Young and trumpeter Clayton. *Dinah* is another standout track with Basie's bouyant piano, free-wheeling and funky Lester Young, and Clayton blowing happy sounds behind blues-shouter Jimmy Rushing. The flip side includes a performance of *Every Tub* that builds tremendous excitement as Lester leads off with a fast, fluent chorus, followed by rollicking Basie, savage Clayton sailing over rocking sax-section riffs, and a trumpet section that plays with uninhibited blasts of power. Unquestionably, **Basie's Best** on Olympic is an inspired example of Swing Era dance music that kept the cash customers happy as it reached great jazz heights.

John Lissner

Sound: C—

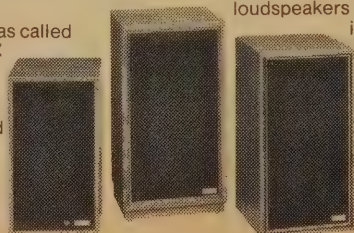
Performance: A+

ABOUT OUR STEREO IMAGE



Our fiendishness about quality control is being widely recognized. We, therefore, wish to thank all responsible, from our Spectrum Analyzer and Non-Reflecting Chamber to the Ears with which we test every single component and driver.

Stereo Review has called our product "Superb": Low Density Woofer Cones treated front and back for super-smooth response and Wide Dispersion Tweeters, resulting in exceptional



stereo imaging, make the Audioanalysts sound magnificently accurate. That's what our sales tell us, despite our selective distribution which we intend to keep limited. So, we'll continue to torture each and every one of our loudspeakers and maintain our image. Beauty, after all, is in the ears of the beholder.

Audioanalyst

P.O. Box 262, Brookfield, Conn. 06804
Monstrous About Perfection

Black Beings; Frank Lowe

Musicians: Lowe, tenor sax; Joseph Jarman, soprano and alto sax; Rashid Sinan, drums; The Wizard, violin; William Parker, bass.

Songs: *In Trane's Name*, *Brother Joseph*, *Thulani*.

ESP-Disk 3013, stereo, \$6.98.

Frank Lowe is an under-regarded tenor saxophonist best known for his explosions on Alice Coltrane's **World Galaxy**. Although he recorded as co-leader with Rashied Ali on the latter's Survival label, *Black Beings* is Lowe's first nationally-distributed album.

The presence of Joseph Jarman of the Art Ensemble of Chicago might lead many to expect a collection of coherent experimental compositions with loosely controlled improvisational sections. However, **Black Beings**, is nothing less than a mid-60s-style *state the theme, then blow like mad* "free jazz" blowing session, something which has become increasingly uncommon in recent years.

Lowe uses the term "spontaneous improvisational music" to describe his art. This precisely defines what he's doing. If nothing else, it avoids the "is it really jazz?" controversy which so hindered acceptance of the 60's avant-garde music. In addition it helps

Distributed in Canada by: Superior Electronics, Inc.

European and Mideastern Distributor: Argo Hellas International, Hollstein Hotel in Taunus 6382 Friedrichsdorf/Bad Homburg West Germany

Check No. 7 on Reader Service Card

evade the bad reputation free jazz suffered after an influx of misguided amateurs flooded the field in the late 60s. The pioneers of this music (Ornette Coleman, Cecil Taylor, and Albert Ayler, among others) and many less-known followers (Giusseppe Logan, Bert Wilson, Gunter Hampel, et al.) were authentic innovators, but too many other musicians felt that abandoning certain traditional strictures (bar lines, chordal structures) gave them license to blow just anything at all, no matter how trivial (or just plain awful), and be hailed as geniuses—as some of those above-named in fact were. The two things most of these con artists lacked were technique and discipline.

Technique and discipline abound in *Black Beings*. Frank Lowe has a fully-developed sax sound unlike any other I've ever heard. He combines the dark-hued tenor rasps/moans of Archie Shepp with the white-hot alto keening of Albert Ayler, resulting in a gritty, grimy sound that can scream like a strangling banshee, then modulate down to a bending, wailing groan. His use of octave effects, quasi-chordal masses, and overtones is much in evidence on *Thulani*, while his wall of screeching harmonics dominates the 25-minute *In Trane's Name*.

Despite all its fury and "freedom," this music displays firm, strong, and disciplined logic which keeps the spontaneous improvisation from falling apart into sheer bombastic histrionics. On first hearing, Lowe's incredible tone may seem just *too much* for the uninitiate. Subsequent hearings, however, will reveal that Lowe knows exactly what he's doing, and more important, why he's doing it.

Jarman's playing will not disappoint his many followers. His melancholy solo on *In Trane's Name*, with its periodic returns to the theme, is more subtle than Lowe's, but it builds to flaming intensity. He coaxes some impossibly gruff sounds from his alto on the unaccompanied *Brother Joseph*. His soprano sax contrasts poignantly with Lowe's feverish cries on *Thulani*. Drummer Rashid Sinan provides powerful, exciting support to the horns, but his solo on *Trane's* is much too one-dimensional for its length (I docked the performance rating a bit because of it!). The Wizard (my first thought was that this might be a nom-de-disque for Mike White or Leroy Jenkins, but maybe it's just some guy who likes to call himself The Wizard) wah-wahs some deft electric violin commentary during ensemble sections.

ESP, infamous for its poorly bal-

controlled impedance

is an extra bonus advantage of every Scott loudspeaker system built since 1965. With **controlled impedance**, you are assured of compatibility between your speakers and your amplifier or receiver. Without **controlled impedance**, you can't be sure, for reasons we explain in our free brochure, "Controlled Impedance—Fact or Myth", which you may receive by circling reader service number or writing to us directly. Or visit your Scott dealer for a demonstration of **controlled impedance** loudspeaker systems priced from \$59.95 to \$349.95.



SCOTT®

where innovation is a tradition

H. H. Scott, Inc., 111 Powdermill Road, Maynard, MA 01754

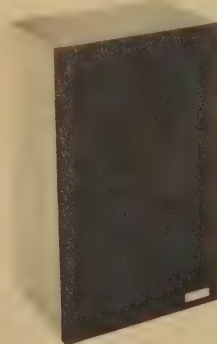
Check No. 76 on Reader Service Card

Polk Audio

proudly introduces

the Model 7 Bookshelf Monitor System;

a moderately-priced full-size system
capable of revealing the subtle qualities
of state-of-the-art equipment.



At \$119 each, we can hardly believe it ourselves

polk audio

4900 Wetheredsville Road, Baltimore, Maryland 21207

Canada: Keldon Electronics, Ltd.

the great Escape



Cue up your favorite record, sit back, relax . . . suddenly you're surrounded by total sound. A spectacular and utterly different musical experience — **The Lee Music Chair.**

The Lee Music Chair is a new version of the famous Lee Sound Chambers. Designed on the principle of the sound engineer's anechoic (echoless) chamber, it's the ideal relationship between listener and sound source.

Inside the chair, you enjoy full volume sound in an acoustically perfect environment. No speaker system in the world gives you such a sense of involvement. The world stays outside. Your sound stays inside. Family and neighbors remain undisturbed.

Best of all, the new Lee Sound Chair with ottoman is available factory direct to save you money. Total cost, chair and ottoman is only \$399 *including* shipping. Ask about our money back guarantee and 10 day free trial. Plan your escape, send now for an illustrated brochure on the **Lee Music Chair.**



LEE WEST, INC.
2824 Metropolitan Place
Pomona, California 91767
714/593-3531

name _____
address _____
city _____ state _____ zip _____

Check No. 31 on Reader Service Card

ACOUSTICAL ENGINEERING Speaker Systems

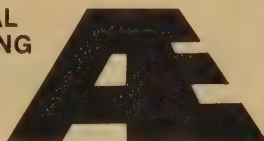
. . . are all three way horn systems with self contained bass horns protected by U.S. Patent No. 3,666,041.

These unique speaker systems are now offered nationwide for the first time to those discriminating few who demand the ultimate in high efficiency horn systems without compromise in material, workmanship or performance.

Write for descriptive brochure and price list. Dealer Inquiries Invited.

ACOUSTICAL ENGINEERING

P.O. Box 221
Sunnyvale
Calif.
94088



Check No. 3 on Reader Service Card



the audio amateur ?

What a trip old Richard's Rhine journey could have become had he built his own mixers, 900 watt amps, octave equalizers, 24 inch woofers, electronic crossovers, and home brew electrostatics. Zounds what sounds!

Ask our Rhine maidens for details.

the Audio Amateur Peterborough, N. H. 03458A
Send for a free prospectus.

Name _____
Street _____
City _____ State _____ Zip _____

Check No. 6 on Reader Service Card

anced recordings during the period when free jazz comprised the bulk of its output, has improved its engineering techniques considerably since the 60s. This live album, though, is most unkind to bassist William Parker and to The Wizard, while the saxes and drums are loud and clear. The surface on my review copy was sandpapery, but the music transcends it.

Tom Bingham

Sound: B—

Performance: A—

K.C. Douglas: The Country Boy.

Musicians: Douglas, vocals, guitar; Richard Riggins, harmonica; Ron Thompson, lead guitar; Jim Marshall, drums.

Selections: *Fanny Lou, Hear Me Howling, Your Crying Won't Make Me Stay, Country Girl, Black Cat Bone, Good Looking Women, Woke Up This Morning, High Water Rising, Mercury Boogie, My Mind's Going Back To 1929, Catfish Blues.*

Arhoolie 1073, stereo, \$5.98.

Douglas, from the Mississippi River delta, was born in 1913, went to California in 1945, recorded in 1948 and again in '55 and '60, and, while retaining his job with the Department of Public Works in Berkeley, has become a familiar figure on the Bay Area blues circuit.

There is no doubting Douglas sincerity. He is a straightforward, undiluted blues man without a shred of meretriciousness or sham. But unless you are a committed blues purist, you may find an entire LP with little variety in tempos or rhythms tough going.

Douglas' clear diction and sometimes interesting lyrics help, but aside from *Mercury Boogie* (a recap of his first recording), the band doesn't develop much pep and Douglas is not a remarkable guitarist. Side one is by K.C. and Riggins (a reasonable harmonica player but no Sonny Boy o Little Walter) only.

Sound quality is excellent (side one has especially fine presence) and the cover photograph is striking. Would I could say the same for the contents!

Dan Morgenstern

Sound: B+

Performance: B—

Maynard Ferguson: Chameleon

Songs: *Chameleon, Gospel John, The Way We Were, Jet, La Fiesta, I Can't Get Started, Livin' For The City, Superbone Meets the Badman.*

Columbia KC 33007, stereo, \$6.95.

It's very easy to be a nitpicker. There have been better releases by other Ferguson bands. But if you like big bands, or just Maynard, you'll find *Chameleon* a most listenable experience.

Chameleon presents the Ferguson

crew with a revamped rhythm section and a host of new charts. As always, the new material is tailored to feature the band's outstanding trumpet section... a trademark of the organization. Maynard has been the inspiration for many aspiring young trumpet players over the years, and a handful of those maturing young talents are present here.

Herbie Hancock's *Chameleon*, the title tune, leads off with all the punch a big band can breathe into a super-funky number like this. Despite its commercial success in the past few months, the tune maintains all its vitality.

One can't help but compare Jerry Johnson's arrangement of Chick Corea's *La Fiesta* to the one which Woody Herman's Herd scored so much success with. The Herman arrangement shows more elaborate scoring, and it features more intricate ensembles, interplay between sections, and interestingly-voiced harmonies. Ferguson's band is a smaller group than Herman's, so the arrangement had to be trimmed. Although the chart lacks the dynamic variety of Herman's, it still packs a wallop in the brass section.

Maynard's band has been propelled for seven years by the two-man team of Pete Jackson, piano, and Randy Jones, drums, who have now been replaced by Alan Zavod and Dan D'Imperio, respectively. Their gears mesh smoothly, but it will be a while yet before they can match the close communication and airwave vibrations of their predecessors.

The band has excellent soloists in baritonist Bruce Johnstone and tenorist Brian Smith. You will remember them notably from the saxophone chase on the up-tempo *One for Otis* from the *Live at Jimmy's* LP (Columbia 32732).

Chameleon also includes a light-hearted vocal by Ferguson on the standard *I Can't Get Started*. The rhyme-and-(what?)-reason lyrics even refer to Linda Lovelace, no less, at one point! *Superbone Meets the Badman* is the one straight-ahead swinger of this date. The title refers to the musical meeting between "Superbone" (Maynard with his own creation, the hybrid valve-slide trombone) and "Badman" Johnstone. The only arrangement of the album which becomes soggy during its several-minute run is *Lovin' For the City*. Its highlights are heavy beats on 2 and 4, and bland ensemble writing.

One of Maynard's best albums to date was his *MF Horn 4 & 5*. A lot of the material on that two-record set was by Don Menzas, Willie Maiden, and others who contributed to vin-

tage Ferguson handbooks of the early Sixties. That album portrayed an unusually colorful and vivid array of ensemble writing which characterized some of the ultimate in big bands (Ferguson's Newport and Birdland crews). It is therefore unfortunate that

a good album like *Chameleon* had to so closely follow *MF 4-5*. Nevertheless this is a worthwhile big band album.
Eric Henry

Sound: B

Performance: B

PRIMO — Leader in the Microphone Field —



MODEL UD-988

◆ **Professional Unidirectional Dynamic Microphone**

- ◆ The unique crisp, clear center tones of the dynamic microphone plus balanced tone quality from the low range to the high range provide superb melodious reproduction.
- ◆ Three-step, M, M1, V, bass roll-off tone switch makes the low range still crisper. Internal ham backing coil reduces external induced noise to a minimum.



MODEL DM-1525

◆ **Omnidirectional Dynamic Microphone**

- ◆ Feeling and balance when held in the hand stressed in design.
- ◆ Unique concepts eliminate popping and handling noise.

SPECIFICATIONS

MODEL	UD-988	DM-1525
Frequency Response	40 ~ 15,000Hz	50 ~ 15,000Hz
Output Impedance	2000Ω Balanced	
Output Level	-77dB ± 3dB	


◆ For further information write or call us today.

PRIMO MICROPHONE INC.
2468 DELTA LANE, ELK GROVE VILLAGE, ILL. 60007
PHONE: 312-595-1022

PRIMO COMPANY LTD.
TOKYO, JAPAN

Check No. 51 on Reader Service Card

SPEAKER KITS.



There's one part of your component system you never thought could be assembled as a kit. Money-saving, multi-element stereo speakers. Build them yourself to save up to half the retail cost of comparable ready-built systems. And get great sound in the bargain.

Send us your name and address and we'll mail you our free 32-page catalog of speaker kits, raw speakers, crossovers, enclosures and tips on design and construction. It's practically a manual on speaker building. Write to:

Speakerlab
Dept. AD, 5500-35th N.E., Seattle, WA 98105

Check No. 67 on Reader Service Card

PAIA ELECTRONICS, INC. **MAKES**

SYNTHESIZER KITS

KEYBOARD MODELS
PRICED FROM
\$230



but did you know we also have

**THE SURF
A BIRD
THE WIND
PING-PONG
WIND CHIMES
DRUMMER BOY
SYNTHESPIN MK-II
THE PYGMY AMP
A CHATTER JAMMER
INFINITY PLUS SUSTAIN
BALANCED MODULATOR
THE SEQUENCER & MIXER
GNOME MICRO-SYNTHESIZER
AND MANY MORE IN OUR
FREE CATALOG**

PAIA ELECTRONICS
BOX A 14369, OKLAHOMA CITY, OK 73114

Check No. 45 on Reader Service Card

Classified

FOR SALE

audio co.
c

25 Aberdeen Drive
Huntington, New York 11743

new

• **AUDIO EQUALIZER**
• **BASIC STEREO PREAMP**
• **ZERO DISTORTION PREAMP**

free catalog with test reports

NATURAL SOUND IS PLEASED TO ANNOUNCE NEW FMI (FULTON) "E" MODULAR SYSTEM. Similar in concept to the critically acclaimed "J" Modular system, the "E"-Subwoofer may be combined with the FMI 60's, 80's or 100's; achieving the finest sound possible from \$338 to \$718 the stereo pair. The FMI Modular Concept provides the most natural sound at every price, and Natural Sound provides the most generous trade-in allowances. On display and in stock at **NATURAL SOUND**, 1021 Claremont, Lincoln, Nebraska 68508, (402) 475-DEAL, and E-7 Institute and Einhorn-WPI, Worcester, Mass. (617) 755-1461. Call for a personal demonstration.

INCOMPARABLE FULTON "J" SYSTEMS IN STOCK FOR IMMEDIATE SHIPMENT. Trade in your KLH 9's, Quads, and Magneplanars for a generous allowance, or upgrade your present system with one of the Fulton subwoofers. (The "J" System is modular). Interested in quality used equipment? We probably have what you want. For quality sound equipment, contact us first. **NATURAL SOUND**, 1021 Claremont, Lincoln, Nebraska 68508, (402) 475-DEAL and E-7 Institute and Einhorn-WPI, Worcester, Mass. (617) 755-1461.

NO GIMMICK! JBL, Marantz, Pioneer discounted 60%! Amazing details FREE. Cost Cutters, Box 8014A, Canton, Ohio 44709.

AUDIO BREAKTHROUGHS

"We're closing the gap on perfection"

Long Island's finest audio dealer. The incredible Lux M-6000 now you can hear what a \$3,000 amplifier sounds like! See the original Transcriptors turntable with new fluid damped arm; complete selection of ultra-fidelity records: Sheffield, Levinson, Fulton, Jonas Miller and more! Just arrived: the new elliptical Decca Mk V, Audiocraft and Grace damped tonearms, Satin "ultimate" cartridge, plus Paoli tube amplifier, Magneplanar, Linn Sondek, Lux turntable, B&W, KEF speakers and drivers, Yamaha (CT-7000, B-1 and NS-1000M!), Supex, M&K super woofer, IAD ultra-low distortion dynamic range expander! Levinson, new Polk, IMF and the list goes on... **AUDIO BREAKTHROUGHS**, 1681 Northern Blvd., Manhasset, N.Y. 11030. (516) 627-7333.

DYNACO STEREO 400 wired by reviewer, factory checked, used only for testing. Original warranty, carton, packing. List \$669, selling for kit price (\$469). Also **FM-5, PAT-5**, same deal (kit price). Box A510-1, c/D Audio.

FOR SALE

AUDIO RESEARCH MAGNEPLANARS and Electronics, ESS, Infinity, Ohm, Dahlquist, EPI, Audionics, Radford, Crown, Citation, BGW, Transcriptor, Linn-Sondek, Keith Monks, ERA, Connoisseur, SME, Supex, Decca, Grace, Sony, Spectrum Scanning Tuner, Epicure Amplifier, Marantz 500, DBX, ADC, Nakamichi, B&O, Tandberg, Celestion, Marc Levinson, Stax, Dayton-Wright, others. **THE GRAMOPHONE LTD.**, 757 Asp St., Norman, Okla. 73069. 405-364-9477.

ANTI-SKATING for AR TURNTABLES!! Proven counterweight design of nickel steel & aluminum construction. Install yourself in minutes. \$7.00 postpaid. (Dealer inquiries invited.) **AUDIO INNOVATIONAL PRODUCTS**, P.O. Box 137, Ballardvale Station, Andover, Mass. 01810.

ORTOFON — SUPEX CARTRIDGE OWNERS; our Micro-Preamp outperforms any transformer. Free literature. Huntington Electronics, Box 2009-A, Huntington, Conn. 06484.

ELECTRONIC CROSSOVERS—ALL TYPES. Definitive booklet describes applications; how to improve speaker systems; \$5.00, credited to first purchase. Huntington Electronics, Box 2009, Huntington, Conn. 06484.

LOWEST DISCOUNT PRICES ANYWHERE on audio equipment. All major brands discounted. Write for quotes, K&L Sound Services. 75 N. Beacon St., Watertown, Mass. 02172.

DIAMOND NEEDLES and Stereo Cartridges at Discount prices for Shure, Pickering, Stanton, Empire, Grado and ADC. Send for free catalog. **LYLE CARTRIDGES**, Dept. A, Box 69 Kensington Station, Brooklyn, New York 11218.

THE MONEY SAVER! Write **STEREO SPECTRUM**, Box 1818, Miami Beach, FL 33139.

WANT TO GO BI-AMP?

DeCoursey Electronic Dividing Networks are available from \$89.10 (Monaural bi-amp) to \$205 (Stereo tri-amp). Price includes plug-in Butterworth filters; 6, 12, or 18 db. per octave at any desired cutoff frequency. Write for brochure. DeCoursey Engineering Laboratory, 11828 Jefferson Blvd., Culver City, California 90230.

STEREO CO-OP. Now purchase stereo components directly from a manufacturer co-op, and realize substantial savings. Members include Advent, EPI, Pioneer, Sansui, Dual, Garrard, and others. Write for specific price quotations. Stereo Co-op, 1629 K St. N.W., Suite 5088-Dept. A, Washington, D.C. 20006.

CROWN STUDIO DECK-800 series (pushbutton solenoid operation) Conv. 700. With RPA record amplifiers. Needs heads. Excellent Cond. Custom maple cabinet. \$750.00 Altec A-7-500's 1 pair utility \$500.00 Ultralinear M-1000's spkrs. 1 pr. \$200.00 McIntosh Mi-2 scope \$130.00 Audio Technica AT 11S with extra stylus \$30.00 Wanted: McIntosh tube tuners(2) Radio Craftsman 500 or 800 (pair or single pieces) Skip Cooper, 3147 Scenic Lake Dr., Ann Arbor, Mich. 48104

SCOTCH—TDK—MAXELL—MEMOREX—CAPITOL—AMPEX. Blank tape. Lowest Prices S & Enterprises, Box 101, Elk Grove Village, Ill. 60007.

FOR SALE

DON'T LET VOLTAGE TRANSIENTS ZAP YOUR HI-FI. Solid State Equipment Protector. Plugs into outlet. Check or money order \$6.95. Kopp Sales & Service, 1650 William St., Buffalo 14206. Free brochure—send SASE.

RECORDING TAPE CLOSEOUT: Dozen reels 2400', \$12.00. Dozen 1200', \$8.00. 24 reels 900', \$6.00. 24 600', \$5.00. Postpaid Guaranteed. Mitchell, Box 132A, Flushing, N.Y. 11367.

ONE STOP for all your professional audio requirements. Bottom line oriented. F.T.C. Brewer Company, P.O. Box 8057, Pensacola, Florida 32505.

DON'T PAY THE HIGH MAIL ORDER PRICES. THIEVES WAREHOUSE of SARASOTA, 6564 GATEWAY AVENUE, SARASOTA, FLORIDA 33581.

BUILD YOUR OWN SPEAKERS AND SAVE UP TO 50%. You can assemble your own high quality, multi-element stereo speakers in a few hours and save up to half the cost of comparable speakers. Send for our free 32-page catalog of speaker kits, raw speakers and accessories. **SPEAKERLAB**, Dept. A2, 5500—35th N.E., Seattle, WA 98105.

ILLINOIS, WISCONSIN, MINNESOTA AUDIOPHILES. Dahlquist, Decca, Dynaco (Modified), Ferrograph, Fulton J, Leeson, IMF, Quad, Quintessence, SAE, Satin, Stax, Technics, Transcriptor, Ampzilla, and many others. Sales, Service, and Installation. **AUDIOPHILE'S SOUND STUDIO** 7459 Elmwood Ave. Middleton (Madison) Wis. 53562 (608) 836-3807

OPERA TAPES. Historical performances of past 40 years. Unbelievable treasures and rarities. ALSO LP RECORDS. Free catalog. Ed Rosen, 66-33 Saunders St., Rego Park, N.Y. 11374.

WESTCHESTER AND FAIRFIELD COUNTY AUDIOPHILES TAKE NOTE! THE AUDIOPHILE, 231 BEDFORD STREET, STAMFORD, CONN. specializes in equipment for the connoisseur. Ampzilla, ADC, Citation, Crown, Dahlquist, Dyna, Epicure, Infinity, Koss Model One, Phillips, SAE, SME, Stax, TEAC, Technics, Thorens and many more. (203) 348-3551 (Closed Mondays).

DISKO MIX-MASTER I for disco use and/or preparation of disco tapes. Mixes two stereo phono inputs with self-contained cueing amplifier. Literature available. \$129.00 Dealer inquiries invited. **BERKSHIRE AUDIO PRODUCTS**, Box 35, Great Neck, N.Y. 11021

CONNECTICUT: Yamaha, Celestion, IMF, Infinity, Braun, Revox, Stellavox, Thorens, ESS, Mark Levinson, Supex, BGW. Will ship prepaid. **AUDIOSCOM**, 177 Sound Beach Avenue, Old Greenwich, Conn. 06870. (203) 637-3621.

RABCO MOD: elegant oiled redwood cartridge shell plus 35% overall arm mass reduction, \$50. Data sheet. **AUDI-OETC**, Box 55, Lansing, Iowa 52151

STEREO TIMER AND ELECTRONIC DIGITAL CLOCK. P.C. Board with instructions \$9.95. Kit with box \$99.95. Assembled unit \$149.95. Wake up and fall asleep to strains of your favorite AM/FM, record, or tape. This product will be an attractive addition to your stereo equipment. Switches up to 1200 watts. **Cosmos Electronics**, Dept. A1 P.O. Box 33278, Seattle, Wash. 98133.

Rates: 35¢ per word per insertion for noncommercial advertisements; 60¢ per word for commercial advertisements. Frequency discounts as follows: 3 times, less 10%; 6 times, less 15%; 12 times, less 20%. Closing date is the FIRST of the second month preceding the date of issue. Payment must accompany all orders. Use the handy self-addressed, postage paid card at the back of this issue. When replying to Audio box number ads, send letters c/o Audio, 134 North 13th Street, Philadelphia, Pa. 19107. For more information about classified advertising, circle Reader Service Card #135.

FOR SALE

ATTENTION: LATIN AMERICAN AUDIOPHILES
ATTENTION: VACATIONERS VISITING THE MIAMI AREA

ATTENTION: RESIDENTS OF SOUTH FLORIDA

SOUND COMPONENTS, INC. is THE place for state of the art stereo. Some of our products include:

LOUDSPEAKERS — SPENDOR BCII and BCIII, Audio Research Corporation Magnaplanars, Quads, Magnepan, Allison I and II, Bowers & Wilkins, FMI including the J System, Gale, M&K Sub-Woofer, Dayton Wright XG-8 Mark III, IMF Small Monitor, IMF Studio IIIB, IMF Super Compact

TURNABLES — Linn-Sondek, The Michell Engineering Co. Transcriptors, B&O 3000-2 and 4000-2, and Yamaha

PICKUPS AND TONEARMS — Ultimo DV38/20A, Denon 103-S, Satin M15 Conic, Supex 900 and 901, Ortofon SL-15E Moving Coil Pickups, SME, Audiocraft, KMAL, Grace 707 Tonearms, Dayton Wright 535 Infranoise Cartridge Pre-amp, Denon Transformers, Ortofon Transformers, and Hoffman Transformers

ELECTRONICS — Audio Research, Lecson, Quad, BGW Ampzilla, Dayton Wright, Paoli, Yamaha, B&O Citation, Stax, Radford

RECORDINGS — A range of selected British, French, and German pressings. Also, the Fulton and Sheffield discs.

All of the above products are in stock and on demonstration in our 110 sq. ft. showroom.

Hours: 10 - 6 Monday through Saturday.
We accept Master Charge and BankAmericard
We ship mail order in continental U.S., prepaid.

SOUND COMPONENTS, INC.
2710 POUNCE DE LEON BLVD.
CORAL GABLES, FLORIDA 33134

Telephone: 305-446-1659 TWX: 810-848-7827

Superb Products For The Discriminating Audiophile and Music Lover.

CANADIAN — DYNACO COMPONENTS AT TREMONT

FOR SALE

GRAPHIC EQUALIZER PLANS: Novel circuit very effective/inexpensive, requires no inductors. Ten knobs (octave bands) compensate your Hi-Fi/Tape providing better listening. Complete plans rushed only \$3.49. GREEN BANK SCIENTIFIC, Box 100C, Green Bank, W.Va. 24944.

COMPETENCE IN AUDIO SINCE 1928!

Qualified service, custom installations
Klipsch, Sequerra, SAE, McIntosh, Levinson,
SME, Ortofon, Fidelity Research, Ampex
Professional, Tandberg.

We buy and sell quality used gear.

THE MUSIC BOX, INC., 58 Central Street,
Wellesley, Mass. 02181. (617) 235-5100.

SIGHT & SOUND LTD.

Catering to the audiophile who desires the absolute in sound, equipment, service and professionalism.

OUR LINES

Ampzilla, ADS/Braun, AKG, B&O, Beyer, Bose, Crown, Dahlquist, DBX, Linn Sondek/MAL, Magnepan, McIntosh, Micro Acoustics, Ortofon, Revox, Soundcraftsmen, Tandberg, Yamaha.

OUR STAFF

Engineers, physicists, musicians, teachers — all devoted audiophiles dedicated to providing the epitome in experience, patience and service.

OUR LOCATION

Campus Hills Shopping Center, Five miles northeast of Bel Air, Maryland 21014 on Route 22. Phone 1-301-838-2100.

WANTED: AUDIOPHILES - TO TEST OUR PRODUCTS AGAINST THE FINEST AVAILABLE - SEND US YOUR REPORT. For free catalog, write to: ACE Audio Co., Dept. A, 25 Aberdeen Drive, Huntington, N.Y. 11743.

NOTICE

NOW AVAILABLE... FAMOUS REFLECTING SYSTEM'S 4 1/2" REPLACEMENT DRIVERS. \$7.98 POST-PAID. BIG QUANTITY DISCOUNTS. FREE SPECIFICATIONS. AURATONE. BOX 580-24A. DELMAR, CALI-

EAROTIC NEW CATALOG

That's right. . . our tantalizing new hi-fi catalog is *hot* off the press! And more than ever, we offer earotic music systems and single components from *all* the best brands—at *huge discounts*. Call me, Brillo Bob, or any of the guys and you'll get friendly advice and low price-quotes right over the phone. . . 805 / 544-9700

Drop us the envelope at left and you'll quickly receive our 96-page color-wonder, free! Include \$1 for postage, and we'll also zip you the 1976 Music Machine Almanac: it's a full-color, 150-page reference guide to hi-fi equipment complete with photos and specs on over 37 different brands! PS. If the envelope's missing, just write me directly: Brillo Bob, P.O. Box "S", San Luis Obispo, CA 93405.

WAREHOUSE SOUND CO.



NEW STEREO CATALOG!

LOW
LOW
PRICES



- ☐ I want to start saving money—fast! So here's \$1.00 for both your new 96-page color catalog and the Music Machine Almanac via Priority First Class Mail.
- ☐ Just zip me the free catalog alone via Third Class Mail.

NAME _____

ADDRESS _____

CITY _____

STATE _____

ZIP _____

C1

Audio

C

of Aug
con-
th St.

POST-
IE RE-
D, CA.

profes-
sionist.

most
Over
ELEC-

rra 1,
25 ea.,
77 Mk
X-824
Linear
\$365;
s TD-
AL-1C,
3 days
inston,

h L/N
J. New
six for
d with
n. Re-
t. 10%
l, Dun-

sin's fi-
TUDIO
Beyer,
THE
(315)

131

Classified

FOR SALE

audio co. 25 Aberdeen Drive
c e Huntington, New York 11743
new • **AUDIO EQUALIZER**
• **BASIC STEREO PREAMP**
• **ZERO DISTORTION PREAMP**
free catalog with test reports

NATURAL SOUND IS PLEASED TO ANNOUNCE NEW FMI (FULTON) "E" MODULAR SYSTEM. Similar in concept to the critically acclaimed "J" Modular system, the "E"-Subwoofer may be combined with the FMI 60's, 80's or 100's; achieving the finest sound possible from \$338 to \$718 the stereo pair. The FMI Modular Concept provides the most natural sound at every price, and Natural Sound provides the most generous trade-in allowances. On display and in stock at **NATURAL SOUND**, 1021 Claremont, Lincoln, Nebraska 68508, (402) 475-DEAL, and E-7 Institute and Einhorn-WPI, Worcester, Mass. (617) 755-1461. Call for a personal demonstration.

INCOMPARABLE FULTON "J" SYSTEMS IN STOCK FOR IMMEDIATE SHIPMENT. Trade in your KLH 9's, Quads, and Magneplanars for a generous allowance, or upgrade your present system with one of the Fulton subwoofers. (The "J" System is modular). Interested in quality used equipment? We probably have what you want. For quality sound equipment, contact us first. **NATURAL SOUND**, 1021 Claremont, Lincoln, Nebraska 68508, (402) 475-DEAL and E-7 Institute and Einhorn-WPI, Worcester, Mass. (617) 755-1461.

NO GIMMICK! JBL, Marantz, Pioneer discounted 60%! Amazing details FREE. Cost Cutters, Box 8014A, Canton, Ohio 44709.

AUDIO BREAKTHROUGHS

"We're closing the gap on perfection"

Long Island's finest audio dealer. The incredible Lux M-6000 now you can hear what a \$3,000 amplifier sounds like! See the original Transcriptors turntable with new fluid damped arm; complete selection of ultra-fidelity records: Sheffield, Levinson, Fulton, Jonas Miller and more! Just arrived; the new elliptical Decca Mk V, Audiocraft and Grace damped tonearms, Satin "ultimate" cartridge, plus Paoli tube amplifier, Magneplanar, Linn Sondek, Lux turntable, B&W, KEF speakers and drivers, Yamaha (CT-7000, B-1 and NS-1000M!), Supex, M&K super woofer, IAD ultra-low distortion dynamic range expander! Levinson, new Polk, IMF and the list goes on... **AUDIO BREAKTHROUGHS**, 1681 Northern Blvd., Manhasset, N.Y. 11030. (516) 627-7333.

DYNACO STEREO 400 wired by reviewer, factory checked, used only for testing. Original warranty, carton, packing. List \$669, selling for kit price (\$469). Also **FM-5, PAT-5**, same deal (kit price). Box A510-1, c/o Audio.

FOR SALE

AUDIO RESEARCH MAGNEPLANARS and Electronics, ESS, Infinity, Ohm, Dahlquist, EPI, Audionics, Radford, Crown, Citation, BGW, Transcriptor, Linn-Sondek, Keith Monks, ERA, Connoisseur, SME, Supex, Decca, Grace, Sony, Spectrum Scanning Tuner, Epicure Amplifier, Marantz 500, DBX, ADC, Nakamichi, B&O, Tandberg, Celestion, Marc Levinson, Stax, Dayton-Wright, others. **THE GRAMOPHONE LTD.**, 757 Asp St., Norman, Okla. 73069. 405-364-9477.

ANTI-SKATING for AR TURNTABLES!! Proven counterweight design of nickel steel & aluminum construction. Install yourself in minutes. \$7.00 postpaid. (Dealer inquiries invited.) **AUDIO INNOVATIONAL PRODUCTS**, P.O. Box 137, Ballardvale Station, Andover, Mass. 01810.

ORTOFON — SUPEX CARTRIDGE OWNERS; our Micro-Preamp outperforms any transformer. Free literature. Huntington Electronics, Box 2009-A, Huntington, Conn. 06484.

ELECTRONIC CROSSOVERS—ALL TYPES. Definitive booklet describes applications; how to improve speaker systems; \$5.00, credited to first purchase. Huntington Electronics, Box 2009, Huntington, Conn. 06484.

LOWEST DISCOUNT PRICES ANYWHERE on audio equipment. All major brands discounted. Write for quotes, K&L Sound Services, 75 N. Beacon St., Watertown, Mass. 02172.

DIAMOND NEEDLES and Stereo Cartridges at Discount prices for Shure, Pickering, Stanton, Empire, Grado and ADC. Send for free catalog. **LYLE CARTRIDGES**, Dept. A, Box 69 Kensington Station, Brooklyn, New York 11218.

THE MONEY SAVER! Write **STEREO SPECTRUM**, Box 1818, Miami Beach, FL 33139.

WANT TO GO BI-AMP?

DeCoursey Electronic Dividing Networks are available from \$89.10 (Monaural bi-amp) to \$205 (Stereo tri-amp). Price includes plug-in Butterworth filters; 6, 12, or 18 db. per octave at any desired cutoff frequency. Write for brochure. DeCoursey Engineering Laboratory, 11828 Jefferson Blvd., Culver City, California 90230.

STEREO CO-OP. Now purchase stereo components directly from a manufacturer co-op, and realize substantial savings. Members include Advent, EPI, Pioneer, Sansui, Dual, Garrard, and others. Write for specific price quotations. Stereo Co-op, 1629 K St. N.W., Suite 5088-Dept. A, Washington, D.C. 20006.

CROWN STUDIO DECK-800 series (pushbutton solenoid operation) Conv. 700. With RPA record amplifiers. Needs heads. Excellent Cond. Custom maple cabinet. \$750.00 Altec A-7-500's 1 pair utility \$500.00 Ultralinear M-1000's spkrs. 1 pr. \$200.00 McIntosh Mi-2 scope \$130.00 Audio Technica AT 11S with extra stylus \$30.00 Wanted: McIntosh tube tuners(2) Radio Craftsman 500 or 800 (pair or single pieces) Skip Cooper, 3147 Scenic Lake Dr., Ann Arbor, Mich. 48104

SCOTCH—TDK—MAXELL—MEMOREX—CAPITOL—AMPEX. Blank tape. Lowest Prices S & Enterprises, Box 101, Elk Grove Village, Ill. 60007.

FOR SALE

DON'T LET VOLTAGE TRANSIENTS ZAP YOUR HI-FI. Solid State Equipment Protector. Plugs into outlet. Check or money order \$6.95. Kopp Sales & Service, 1650 William St., Buffalo 14206. Free brochure—send SASE.

RECORDING TAPE CLOSEOUT: Dozen reels 2400', \$12.00. Dozen 1200', \$8.00. 24 reels 900', \$6.00. 24 600', \$5.00. Postpaid Guaranteed. Mitchell, Box 132A, Flushing, N.Y. 11367.

ONE STOP for all your professional audio requirements. Bottom line oriented. F.T.C. Brewer Company, P.O. Box 8057, Pensacola, Florida 32505.

DON'T PAY THE HIGH MAIL ORDER PRICES. THIEVES WAREHOUSE OF SARASOTA, 6564 GATEWAY AVENUE, SARASOTA, FLORIDA 33581.

BUILD YOUR OWN SPEAKERS AND SAVE UP TO 50%. You can assemble your own high quality, multi-element stereo speakers in a few hours and save up to half the cost of comparable speakers. Send for our free 32-page catalog of speaker kits, raw speakers and accessories. **SPEAKERLAB**, Dept. A2, 5500—35th N.E., Seattle, WA 98105.

ILLINOIS, WISCONSIN, MINNESOTA AUDIOPHILES. Dahlquist, Decca, Dynaco (Modified), Ferrograph, Fulton J, Leeson, IMF, Quad, Quintessence, SAE, Satin, Stax, Technics, Transcriptor, Ampzilla, and many others. Sales, Service, and Installation. **AUDIOPHILE'S SOUND STUDIO** 7459 Elmwood Ave. Middleton (Madison) Wis. 53562 (608) 836-3807

OPERA TAPES. Historical performances of past 40 years. Unbelievable treasures and rarities. ALSO LP RECORDS. Free catalog. Ed Rosen, 66-33 Saunders St., Rego Park, N.Y. 11374.

WESTCHESTER AND FAIRFIELD COUNTY AUDIOPHILES TAKE NOTE! THE AUDIOPHILE, 231 BEDFORD STREET, STAMFORD, CONN. specializes in equipment for the connoisseur. Ampzilla, ADC, Citation, Crown, Dahlquist, Dyna, Epicure, Infinity, Koss Model One, Phillips, SAE, SME, Stax, TEAC, Technics, Thorens and many more. (203) 348-3551 (Closed Mondays).


DISKO MIX-MASTER I for disco use and/or preparation of disco tapes. Mixes two stereo phono inputs with self-contained cueing amplifier. Literature available. \$129.00 Dealer inquiries invited. **BERKSHIRE AUDIO PRODUCTS**, Box 35, Great Neck, N.Y. 11021

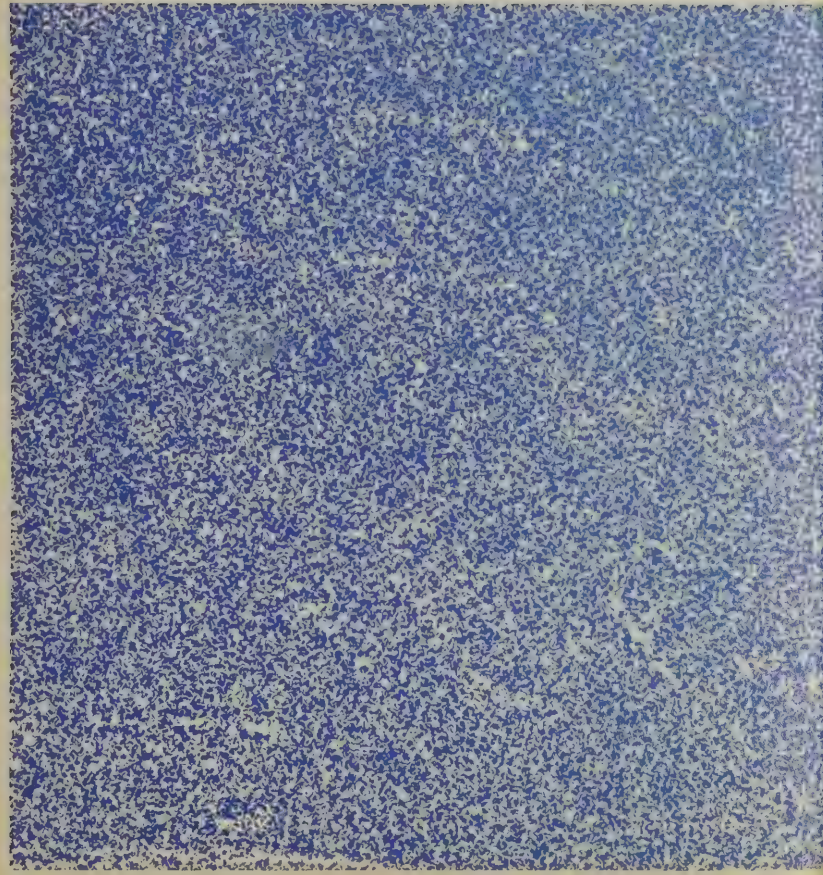
CONNECTICUT: Yamaha, Celestion, IMF, Infinity, Braun, Revox, Stellavox, Thorens, ESS, Mark Levinson, Supex, BGW. Will ship prepaid. **AUDIODOM**, 177 Sound Beach Avenue, Old Greenwich, Conn. 06870. (203) 637-3621.

RABCO MOD: elegant oiled redwood cartridge shell plus 35% overall arm mass reduction, \$50. Data sheet. **AUDI-OETC**, Box 55, Lansing, Iowa 52151

STEREO TIMER AND ELECTRONIC DIGITAL CLOCK. P.C. Board with instructions \$9.95. Kit with box \$99.95. Assembled unit \$149.95. Wake up and fall asleep to strains of your favorite AM/FM, record, or tape. This product will be an attractive addition to your stereo equipment. Switches up to 1200 watts. **Cosmos Electronics**, Dept. A1 P.O. Box 33278, Seattle, Wash. 98133.

Rates: 35¢ per word per insertion for noncommercial advertisements; 60¢ per word for commercial advertisements. Frequency discounts as follows: 3 times, less 10%; 6 times, less 15%; 12 times, less 20%. Closing date is the FIRST of the second month preceding the date of issue. Payment must accompany all orders. Use the handy self-addressed, postage paid card at the back of this issue. When replying to Audio box number ads, send letters c/o Audio, 134 North 13th Street, Philadelphia, Pa. 19107. For more information about classified advertising, circle Reader Service Card #135.

DETACH HERE  AND LICK ALL THREE SIDES BEFORE MAILING



NEW STEREO CATALOG!

LOW
LOW
PRICES



- ☐ I want to start saving money—fast! So here's \$1.00 for both your new 96-page color catalog and the **Music Machine Almanac** via *Priority First Class Mail*.
- ☐ Just zip me the free catalog alone via *Third Class Mail*.

NAME

ADDRESS

CITY

STATE

ZIP

C1

Audio

C

D

RAILROAD SQUARE, BOX S
SAN LUIS OBISPO, CA. 93405

WAREHOUSE SOUND Co.

Place
Stamp
Here

FOR SALE

ATTENTION: LATIN AMERICAN AUDIOPHILES
ATTENTION: VACATIONERS VISITING THE MIAMI AREA

ATTENTION: RESIDENTS OF SOUTH FLORIDA

SOUND COMPONENTS, INC. is THE place for state of the art stereo. Some of our products include:

LOUDSPEAKERS — SPENDOR BCII and BCIII, Audio Research Corporation Magnaplanars, Quads, Magneplan, Allison I and II, Bowers & Wilkins, FMI including the J System, Gale, M&K Sub-Woofer, Dayton Wright XG-8 Mark III, IMF Small Monitor, IMF Studio IIIB, IMF Super Compact

TURNTABLES — Linn-Sondek, The Michell Engineering Co. Transcriptors, B&O 3000-2 and 4000-2, and Yamaha

PICKUPS AND TONEARMS — Ultimo DV38/20A, Denon 103-S, Satin M15 Conic, Supex 900 and 901, Ortofon SL-15E Moving Coil Pickups, SME, Audiotape, KMAL, Grace 707 Tonearms, Dayton Wright 535 Infra-Red Cartridge Pre-amp, Denon Transformers, Ortofon Transformers, and Hoffman Transformers

ELECTRONICS — Audio Research, Lecson, Quad, BGW Ampzilla, Dayton Wright, Paoli, Yamaha, B&O Citation, Stax, Radford

RECORDINGS — A range of selected British, French, and German pressings. Also, the Fulton and Sheffield discs.

All of the above products are in stock and on demonstration in our 110 sq. ft. showroom.

Hours: 10 - 6 Monday through Saturday.

We accept Master Charge and BankAmericard

We ship mail order in continental U.S., prepaid.

SOUND COMPONENTS, INC.
2710 POUNCE DE LEON BLVD.
CORAL GABLES, FLORIDA 33134

Telephone: 305-446-1859 TWX: 810-848-7627

Superb Products For The Discriminating Audiophile and Music Lover.

CANADIANS — DYNACO COMPONENTS AT TREMENDOUS DISCOUNTS. Write En-Jay Sales, Hornepayne, Ontario.

TUNED ROCK P.A.'s. Customized high intensity touring/permanent installation sound systems, including narrow band (5 Hz) feedback suppression, detailed regenerative response. Acousta-Voicing/environmental equalization (+1dB at your ears), room design/measurement/treatment, +15% articulation loss of consonants, 1000's of customized professional products including ... fiberglass horns, consoles, comp/rms/peak limiters, 18db continuously variable electronic crossovers, digital/acoustic delays, omnipressors, phasers, reverb, echo, doubling/tripling effects. P.A. noise reduction, piezo transducers, frequency shifters from J.B.L./Altec Pra, Tascam, U.R.E.I., Eventide, Gately, Studer, Beyer, Crown, Community Light/Sound, Mom's Audio, McIntosh, Bozak, Allen Heath, Gauss, Catc, Scully, Multi-track, etc., etc. All shipped prepaid/Insured. Music & Sound Ltd. 11 1/2 Old York Rd., Willow Grove, Pa 19090 (215) 659-9251.

DEALERS!! CONSUMERS!!

Write for quotes on all medium and many High End lines. We need campus reps and people seriously interested in hi-fi to properly demonstrate a fantastic loudspeaker line. Liberal compensation for qualified individuals. Write: Audio P.O. Box 36 Solsberry, Indiana 47459, or call (812) 825-9750 or (812) 332-4252.

THE ABSOLUTE SOUND, in its next issue, takes a look at the running battle between two companies for supremacy in state-of-the-art components. In one corner, Infinity with its new Class D Switching Amp and its \$3,200 Servo-Statik Ia. In the other, Audio Research with an improved Dual 76 and the new Tympani IV. We'll review them all as well as the new V-FET Amp from Yamaha and Sony (just to round out the corners). Expect an extended look at the new Dahlquist bookshelf speaker, the Allison One, the Ohm F, and the Yamaha Beryllium Dome speaker. Don't forget we'll be examining the new Levinson pre-amp (the JZ2), the Fidelity Research and Denon cartridges; the Stax FET pre-amp, the Dyna PAT-5, and (perhaps) a new speaker from Dick Sequerra. There's more too. Cost: \$10 for 4 issues U.S.A.; \$11 Canada; \$2 more for 1st class mailing. Foreign \$13 air mail. Back issues 1 through 6, \$3 each. The Absolute Sound, Box 5A, Northport, N.Y. 11768.

FOR SALE

GRAPHIC EQUALIZER PLANS: Novel circuit very effective/inexpensive, requires no inductors. Ten knobs (octave bands) compensate your Hi-Fi/Tape providing better listening. Complete plans rushed only \$3.49. GREEN BANK SCIENTIFIC, Box 100C, Green Bank, WV. 24944.

COMPETENCE IN AUDIO SINCE 1928!

Qualified service, custom installations
 Klipsch, Sequerra, SAE, McIntosh, Levinson,
 SME, Ortofon, Fidelity Research, Ampex
 Professional, Tandberg.

We buy and sell quality used gear.

THE MUSIC BOX, INC., 58 Central Street,
 Wellesley, Mass. 02181. (617) 235-5100.

SIGHT & SOUND LTD.

Catering to the audiophile who desires the absolute in sound, equipment, service and professionalism.

OUR LINES

Ampzilla, ADS/Braun, AKG, B&O, Beyer, Bose, Crown, Dahlquist, DBX, Linn Sondek/MAL, Magneplan, McIntosh, Micro Acoustics, Ortofon, Revox, Soundcraftsman, Tandberg, Yamaha.

OUR STAFF

Engineers, physicists, musicians, teachers — all devoted audiophiles dedicated to providing the epitome in experience, patience and service.

OUR LOCATION

Campus Hills Shopping Center, Five miles northeast of Bel Air, Maryland 21014 on Route 22. Phone 1-301-838-2100.

WANTED: AUDIOPHILES - TO TEST OUR PRODUCTS AGAINST THE FINEST AVAILABLE - SEND US YOUR REPORT. For free catalog, write to: ACE Audio Co., Dept. A, 25 Aberdeen Drive, Huntington, N.Y. 11743.

NOTICE

NOW AVAILABLE. ... FAMOUS REFLECTING SYSTEM'S 4 1/2" REPLACEMENT DRIVERS. \$7.98 POSTPAID. BIG QUANTITY DISCOUNTS. FREE SPECIFICATIONS. AURATONE, BOX 580-24A, DELMAR, CALIFORNIA 92014.

THE AUDIO RESEARCH ROOM. The complete line of Audio Research equipment on display under ideal listening conditions. AUDIO SYSTEMS & DESIGN, 5421 South 84th St., Lincoln, Nebraska 68516 (402) 489-9888.

AMPEX TAPE—NEW 1800' on 7" reel 12 for \$18 POSTPAID; 1200' 12 for \$13 POSTPAID—free list—WIDE RESPONSE, 6114A SANTA MONICA BLVD., HOLLYWOOD, CA. 90038.

ELECTROENCEPHALOPHONE: brainwave monitor, Professional biofeedback instruments. J&J 8102-A, Bainbridge, WA. 98110.

JAPANESE TRANSISTORS, Kit \$23.44 contains 24 most widely used transistors, including 14 power transistors. Over 500 types available. Free catalog WEST PACIFIC ELECTRONICS, Box 25837, W. Los Angeles, Calif. 90025.

HIGHEST QUALITY USED EQUIPMENT: Sequerra 1, \$1900; Dahlquist DQ-10, \$310 ea.; IMF ALS-40A, \$225 ea.; JBL S8R, \$750 ea.; Revox A77 Mk III, \$650; Revox A77 Mk IV/Dolby, \$850; Crown D-150, \$400; Crown CX-824 w/case, remote, \$1700; Crown OC-150, \$225; Phase Linear 700, \$550; Tandberg 9200XD, \$825; SAE VII, \$385; Marantz 240, \$300; Rabco SL-8E, \$100; Thorens TD-125/SME, \$325; Sony 770-4, \$400; McIntosh ML-1C, \$250 ea.; Bozak 301-F, \$100 ea. All guaranteed 90 days parts and labor. Audio Consultants, 517 Davis St., Evanston, Illinois 60201. (312) 864-9565.

10 1/2" RECORDER SPECIALISTS: Fresh new Scotch L/N 3600 ft. on new 1/4" NAB metal reels five for \$35.00. New Ampex GRANDMASTER tape on 10 1/2" metal reel, six for \$73.00. New 4 channel 8-track blank cartridge loaded with 40 minutes Scotch L/N tape, \$23.00 per dozen. Reconditioned NAB metal 10 1/2" reels, \$24.00 per dozen. 10% on above for postage. Sound Investment, POB 88338, Dunwoody, Ga. 30338.

CENTRAL NEW YORK HI-FI ENTHUSIASTS—Britain's finest loudspeakers on demonstration—THE IMF STUDIO AND ALS40—as well as Marantz, Pioneer, Revox, Beyer, Epicure (3 lines), Thorens, Ortofon, XLM, Discwasher ... THE SOUND SHOP, 96 Seneca Street, Geneva, N.Y. 14458 (315) 781-0215.

EAROTIC NEW CATALOG

That's right. . . our tantalizing new hi-fi catalog is hot off the press! And more than ever, we offer earotic music systems and single components from all the best brands—at huge discounts. Call me, Brillo Bob, or any of the guys and you'll get friendly advice and low price-quotes right over the phone. . . 805 / 544-9700

Drop us the envelope at left and you'll quickly receive our 96-page color-wonder, free! Include \$1 for postage, and we'll also zip you the 1976 Music Machine Almanac: it's a full-color, 150-page reference guide to hi-fi equipment complete with photos and specs on over 37 different brands! PS. If the envelope's missing, just write me directly: Brillo Bob, P.O. Box "S", San Luis Obispo, CA 93405.

WAREHOUSE SOUND CO.



FOR SALE

MARK LEVINSON AUDIO SYSTEMS presents the JC-1 DC, a battery-powered, moving-coil cartridge pre-amplifier with excellent sonic qualities for \$100.00. Its noise and distortion are not quite as low as the JC-1 AC and it does not provide individual channel balancing. (See our display ad in this issue.) It has two gain settings to match all low-impedance cartridges to any 47 kohms phono input. The internal voltage regulator insures very long battery life and stable performance characteristics. Requires 4 size-D batteries. Send \$1.00 for complete information on our product line. Dealer list on request. Mark Levinson Audio Systems, 55 Circular Ave., Hamden, Conn. 06514.

FREE ADVERTISING. Buy or sell your equipment through AUDIOMART. SUBSCRIBE \$4/12 issues. Box 821, Stratford, Connecticut 06497.

MIDWESTERNERS - Write for COMPONENT AND RECORDING TAPE DISCOUNT PRICE LIST. AUDIO, Box 477, Notre Dame, Indiana 46556.

TECHNICS SL 1200 with Decca Mk V cartridge — \$285. Thorens TD125 Mk II, \$200, no arm. Sam, 1-503-666-4018, 18435 N.E. Clisan No. 38, Portland, Oregon 97230.

EPI 601 DIRECT/REFLECTING speakers. 18 months old Chrome & Walnut pedestal stands. \$335/pair. John Curran, 1402 W. Barker, Peoria, Ill. 61606

YOUR ROOM IS THE MISSING LINK

A state of the art system is usually junk in the typical poor listening environment, and therefore a rip-off. Our acoustical consulting division will have a calibrated "reverberation curve vs. frequency" measurement performed in your room, and our engineering dept.'s plan of correction, loudspeaker placement, and room equalization, all at no cost with your purchase or upgrade. Music & Sound Ltd., 11 1/2 Old York Rd., Willow Grove, Pa. 19090. (215) 659-9251.

CONSIDER YOUR SOURCE FOR SOUND

I. Credentials

College instructors in audio /acoustics, Inventors/graduate electrical engineers, Recording & disc mastering engineers; Members: United Inventors & Engineers Acoustical Society of America
Institute of Electronic Engineers

II. Facilities

Anechoic Chamber: .95 working floor
\$50,000 research laboratory
Factory authorized "A" warranty stations
Loudspeaker Reconciling Lab

III. Our Distinguished Suppliers

Audio Research, Sequerra, Satin/Denon/F-R, Transcriptors, F.M.I./R.T.R., Linn Sondek, Nakamichi, Dayton Wright, Dahlquist, Crown, Infinity, I.M.F., London Decca, Quad, Rogers, Spondor, Stax, B&O, Grace, Supex, Micro Acoustics, Custom Rabco, Braun, Revox A-700, Ortofon, Damped S.M.E., Scully, Mark Levinson, Koss-ELS, Yamaha.

+

1000's of PROFESSIONAL products (see Tuned Rock P.A. ad).

Music & Sound Ltd., 11 1/2 Old York Rd., Willow Grove, Pa. 19090. (215) 659-9251.

Whom Would You Trust?

THOUSANDS OF LIKE NEW LP's and prerecorded tapes. Catalogue \$1.50. House of Records, Hillburn, New York 10931.

AUDIO RESEARCH, AUDIONICS, BANG & OLUFSEN, BOZAK, CROWN, DBX, KLIPSCH, KMAL, LINN SONDEK, NAKAMICHI, PHASE LINEAR, RADFORD, REVOX, SEQUERRA, STAX, TANDBERG, BEYER, SENNHEISER, and other fine instruments for the reproduction of music. Send for list of used equipment **AUDIO SYSTEMS AND DESIGN**, 5421 South 84th St., Lincoln, Nebraska 68516 (402) 489-9888 ... and 4408 Capital Ave., Omaha, Nebraska 68131. (402) 556-7559.

CONN. AND WESTERN MASS—FRED LOCKE STEREO offers Accuphase, Epicure, Crown, Quatre, Audio Research, Phase Linear, SAE, Citation, Mark Levinson, Soundcraftsman, ESS (including bi-amped Towers), Magneplanar, Thorens, Technics, S.M.E., Ortofon, Supex, Fidelity Research, Revox, Tandberg, Teac, Transcriptors, DBX, Beyer, Stax, AKG, Nakamichi, Sequerra, Burwen, Hartley woofers, and others Avon 203-678-1797; East Hartford 203-528-9479; New Haven 203-787-0183; Waterbury 203-757-9296; Fairfield 203-366-5246; Springfield, Mass. 413-782-7111.

FOR SALE

IMF LOUDSPEAKERS, monitor featured. Transcriptors turntables. Levinson, Burwen, D/M electronics. Futterman tubed amplifiers. Fidelity Research cartridges. Shot-Glass loudspeakers. Brown Auditorium stereo headphones, \$60. Technics SL-1300 turntable, mint \$200. Sheffield recordings. Jensen Fives speaker, mint \$290 pair. Wharfedale WS-2 speakers, VG, \$83 pair. WANTED: Marantz, McIntosh, Futterman tubed equipment. Audiocraft, South Rockwood, Michigan 48179. (313) 379-9945.

COMPONENTS FOR THE CONNOISSEUR

LOUDSPEAKERS: Audio Research T-3A, 1B, Braun LV 1020, Dahlquist DQ10, Dayton-Wright XG-8 MK11B, ESS, Fulton J Modular System, Hartley Concert Master, Hegeman 1A, & 2, Magneplanar MG2167-F, RTR 280 DR, ESR 6, 15. **COMPONENTS:** Audio Research, BGW, Burwen, Connoisseur, Dayton-Wright, Hervic, Linn-Sondek, M&K super woofers and crossovers for T-3ATM, 1B, etc., Mark Levinson Products, Ortofon, Panasonic SP 10, Quad, Quintessence, Radford, SAE, Shure, S.M.E., Supex, Thorens Transcriptor and SEQUERRA. Brochures available.

PAUL HEATH AUDIO
354 STATE STREET
ROCHESTER, N.Y. 14608
(716) 232-2828

HONG KONG, TAIWAN, JAPAN, Asia Directory. World products information. Mail-orders, bulk-orders. Listings. Directory and Information \$1.00 today. World Trade inquiries. Box 6224, Spokane, Wash. 99207.

HIGH PERFORMANCE HIGH FIDELITY WITHOUT THE "HYPE". Suffolk Audio takes a rational, no nonsense viewpoint on high performance audio equipment. Our advice and opinions are based in objective fact, not mythology and folklore. All equipment is pre-tested for maximum performance. Our distinguished suppliers include: Allison Acoustics, Bowers and Wilkins, Quad, Linn Sondek, Decca, Mark Levinson, Revox (incl. A-700 series), KMAL, Ortofon, BGW Systems, Radford, Beyer, Connoisseur, and much, much more. Call or write for information.

SUFFOLK AUDIO, INC.
1105 Mass. Avenue
Cambridge, Mass. 02138
Ph. (617) 868-1080.

PROTECT YOUR LPs. Poly sleeves for jackets 8c round bottom inner sleeves 6c Poly lined paper sleeves 15c White jackets 35c Postage \$1.25. House of Records, Hillburn, New York 10931.

NEW YORKERS—WE ARE COMMITTED!

Consult with us about your audio needs. We have what you want, we offer FULL service.

IMF, BGW, SAE, OHM, INFINITY, KLIPSCH, ORTOFON, THORENS, S.M.E., LEVINSON JC-1, STAX, ADS-BRAUN, TECHNICS, PIONEER, KENWOOD, CROWN, MARANTZ, TANNOY, KEF, IAS, DBX, REVOX and Many Others.

INNOVATIVE AUDIO
129 DeGraw Street
Brooklyn, NY 11231
(212) 596-0888
Call For Appointment

ARIZONA AUDIOPHILES

Crown ★ E.S.S. ★ Accuphase ★ S.A.E. ★ Revox ★ S.M.E. ★ Grace ★ Stax ★ Tandberg ★ Magneplanar ★ Burwen ★ Rabco ★ Sequerra ★ Bose ★ Thorens ★ Stanton ★ Uher ★ Klipsch ★ Phase Linear ★ Sennheiser ★ J.B.L. ★ Sony V-F.E.T. ★ Beyer ★ Jennings Research ★ Nakamichi ★ Yamaha ★ Sansui ★ TEAC ★ Transcriptor.
JERRY'S AUDIO EXCHANGE
Phoenix-334 E. Camelback Rd. 85012 602-263-9410
Tempe-130 E. University Dr. 85281 602-968-3491
Tucson-1037 N. Park Ave. 85719 602-622-7407

CUSTOM BUILT SPEAKER SYSTEMS, enclosures, kits, foam grills, crossovers. Raw speakers. Low prices, high quality. CSS, 8460 Marsh, Algonac, Mich. 48001.

BLANK TAPES—Excellent quality. **Cassette:** C-60 - .76, C-90 - .96, C-120 - \$1.10; **8 Track:** 40 Min. - .98, 80 Min. - \$1.15. Minimum order (10 tapes), C.O.D. Orders (50 tapes) R.A. Egberts, G.P.O. Box 580, Staten Island, New York 10314.

FOR SALE

STEREO NEEDLES AND CARTRIDGES—ADC, B&O, GRADO EMPIRE, MICRO-ACOUSTIC, PICKERING, ORTOFON, SHURE, STANTON, SUPLEX, SONY, PANASONIC, RCA, BSR, and others. Write for FREE CATALOG. NEEDLE IN A HAY-STACK, INC., P.O. Box 17436, Washington, D.C. 20041.

NOW IN PRODUCTION: World's heaviest 12" woofer. 17Hz resonance. Over 200 watts RMS. Sand cast frame, \$59.00 delivered U.S.A. Rockwell Systems, Inc., 100 Liberty St., Rockwell, N.C. 28138. **NOW THE BIG MID-RANGE:** 3" dome, 3" voice coil, 96 watts RMS sine wave power at 1000Hz. Over 120 degrees dispersion 500 to 5000 Hz. Weight 1 1/2 pounds. \$99.50 postpaid USA.

AUDIO RESEARCH 176 (new, sealed carton) \$750. **MARANTZ 7C (MINT)** \$350. (313) 331-0453.

WESTCHESTER HEADQUARTERS for the great sounds in the world. Quad, Cambridge, Dahlquist, Bose ESS, Braun, SAE, EPI, Crown, Phase Linear, Tandberg, Thorens, Yamaha, Nakamichi, Technic, BGW, Dual, Revox, Leak, B&O, DBX, Burwen, **We stock Ampzilla.** The listening Room, Inc. 590 Central Ave. Scarsdale, N.Y. 10583 (914) 472-4558.

BOZAK B-310 PANELS plus 4 extra mid-ranges — \$650. 8 Jantzen Z130's — \$75 to \$90 each. Pioneer Elect-Xover SF700 — \$75. Phase Linear 700W amp — \$400. All mint condition — private. A Buonocore, 80-30 235th Street, Queens Village, N.Y. 11427. (212) H0 5-4717.

AT LAST! The high-output version of the highly regarded SUPEX SD-900 is now available in the U.S. The SD-901 will work directly into any pre-amp. \$145.00. For name of Dealer nearest you write to Sumiko, Box 5046, Berkeley, Ca. 94705.

AUDIOPHILE TEST TAPE, 1/4 tr. 7 1/2, 3 1/4. Tones from 30 to 15000 Hz, incl. 30, 40, 50, 60, 70, 80, 90, 100 and 10, 11, 12, 13, 14, 15 KHz; also pink noise sweep; indiv. calibr. +/-2db or better on tones. \$19.95 postpaid, cheque or money order to **ANDREW MARSHALL AUDIO PROD.**, 379 Hillsdale Ave. E. TORONTO M4S 1T9.

AUDIO'S HI-FI HANDBOOK

Complete reference guide to over 1,000 components, including prices and specs. All arranged in tabular form for easy comparison. Plus over 30 outstanding articles on audio topics, trends and advances. State-of-the-art reading for audiophiles. Only a limited quantity available. Over 200 pages. Send \$3.95 (includes shipping and handling) to: Jean Davis, Audio Hi-Fi Handbook, 134 N. 13th St., Phila., Pa. 19107.

MILWAUKEE & WISCONSIN'S only audiophile dealer. Specialists in components by Crown, Dahlquist, Transcriptors, Integral Systems, Epicure, Nakamichi, Bozak, Citation, Ohm, S.M.E., Ampzilla, DBX, Infinity, SAE, RTR, ESS, Revox, Phase Linear and 50 others. Wisconsin's only Audio Research dealer with the entire product line on demonstration. **WACK ELECTRONICS INC.**, 5722 W. North Ave., Milwaukee 53208. 414-442-3441.

—SPEAKER CATALOG—

Up to date. Top quality drivers. Hop-up the speakers you have or build new ones. Transmission-line speaker plans \$5.00—Foam damping material. E&E Audio, 2816 Church Ave., Brooklyn, New York 11226. .212 462-0984

LIKE NEW: Marantz 7 with two model 9 amps, \$1100; Teac 3340, \$750; Teac 7010A, \$500; Thorens TD124 arm, etc., \$200; Ampex 960 deck, \$175. Two Klipschorn HERESY Speakers, new in box, \$300. Money Back Guarantee. Will trade any or all for good amateur radio gear. John Cunningham, Box 7501, Columbus, Georgia 31908 — (404) 561-7000.

HI-FI ENTHUSIASTS WANTED!! Earn more than just spare money in your spare time. We need campus representatives to sell name brand stereo components at discount prices in your area. High commission, no investment required. Serious inquiries only, please. Contact: Alan Weisberg, K&L Sound Services Co. 75 N. Beacon St., Watertown, Mass. 02172.

CAN YOU IMAGINE a magazine that recommends components in four categories from no-holds-barred to best-for-the-money? The **Stereophile** does it. For info write Box 49A, Elwyn, Pa. 19063.

FOR SALE

INFRA WOOFER™ world's largest, deepest, most powerful sub-woofer system can be had **only** at Music and Sound, Ltd. 50 dB per octave crossover, bandpass 16 Hz. . \$1495.

DAHLQUIST, F.M.I., I.M.F., HARTLEY SUB-WOOFERS. for the closest approximation to dipole definition \$132 up! Shipped prepaid/insured. Music and Sound, Ltd., 11 1/2 Old York Road, Willow Grove, Pa. 19090 (215) 659-9251.

+ Free PassiveX-over Design w/ Purchase +

AKG, ALTEC, AUDIO RESEARCH, Beyer, CROWN, DAHLQUIST, DBX, DECCA, INFINITY, KLH 9s, Koss, Mark Levinson, Nakamichi, Orofon, PHASE LINEAR, PML, REVOX, SAE, Sennheiser, Sequerra, Sony, Stanton, Stax, Supex, Tandberg, TASCAM, Technics, Thorens, etc.

HI-FI HAVEN

28 Easton Ave.
New Brunswick, N.J. 08901
201-249-5130

LOW NOISE STEREO PREAMPLIFIER.

Model SP5200. New! In limited production. Ask your dealer or contact Burwen Laboratories, Dept 11, 209 Middlesex Turnpike, Burlington, Massachusetts, 01803 Tel. 617-273-1488

Sonically spectacular, highly modified, Dyna PAS preamp. Extreme definition plus cosmetic improvement: A bargain at \$150. Factory modified Fidelity Research cartridge and transformer, low time: \$200. Have two of each or wouldn't sell. H.L. Eisenon, 259 C Avenue, Coronado, CA 92118

PIEZO SUPER HORN TWEETERS \$7.95 P.P. Cont. U.S.A. Daily Mfg. Co. (Mfr. of quality loudspeaker systems since 1951), 100 Liberty St., Rockwell, N.C. 28138.

CANADIANS: Shure M91ED \$24.88; Dynaco A25 \$68.00; Pioneer SX424 \$179.95; Dual 1216 \$119.00; Leak Delta 75 \$289.00; Garrard Mini changer \$13.99. Free Hi-Fi discount catalog. Etc (Au), Box 741, Montreal H3C 2V2.

NAME BRAND RECORDING TAPE, custom loaded. Available in cassettes, reels, and cartridges. Huge savings direct from manufacturer. MJS, 516 Brooks, San Jose, Calif. 95125.

SHOP AROUND — Listen to every speaker available — then come to Cyberacoustic Laboratory and hear RTR's New Direct Drive Electrostatic DR-1 speaker system at Philadelphia's exclusive distributor — by appointment — 503 Haverford Ave., Narberth, Pa. 19072. (215) 667-3048.

DEALERS: We will buy your excess stock. ALL lines, no quantity too large or small. Cash paid immediately. Call M. Gasman 617-924-0561.

AR TURNTABLE OWNERS. Add cueing. Precision machined. Silicon damped. American made. \$16.00, postpaid. Lyrelift, 582 Franklin Street, Cambridge, Mass. 02139

CROWN, MCINTOSH, Phase Linear, B&O, Epicure, Nakamichi, Avid, Frazier, Ortofon, Soundcraftsmen, Tandberg, Yamaha, and many others. Bryn Mawr Stereo & TV, 1016 Lancaster Ave, Bryn Mawr, PA 19010 (215) 525-6300

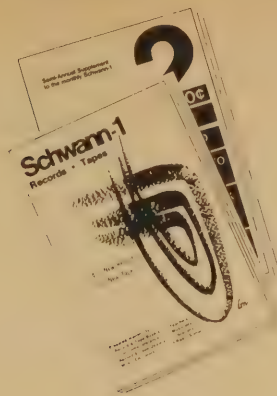
FAMOUS MAKE PIANOS AND ORGANS shipped prepaid anywhere at tremendous saving. State make and model wanted for our quotation. File this advertisement for future reference. Greenwich Music Center, Greenwich, N.J.

DON'T PAY THE HIGH MAIL ORDER PRICES THIEVES WAREHOUSE OF TAMPA, 1531 SOUTH DALE MABRY, TAMPA, FLORIDA 33609.

TORONTO AREA FM FANS: Get the full story on local programming, new products, dealers, record reviews. The FM Guide, 122 Davenport Road, Toronto M5R 1H9. One year, \$7.00.

ORIGINAL TRANSCRIPTOR HYDRAULIC REFERENCE TURNTABLE (do not confuse with smaller "Skeletal" table/Vestigial arm package from Ireland) now available direct from U.S. importer. Magnificent turntable complete with silicone-damped Unipivot arm, \$498.00 freight prepaid. Without arm, including blank arm-mounting board or one cut for SME, \$398.00. Send \$100.00 down for COD shipment. Audiophile Imports, 10 East Erie, Chicago, 60611. (312) 787-0754.

West Michigan Audiophiles—Paoli, Ampzilla, Transcriptors, Magnepan, Fulton. Available at Music Center/Equinox, (616) 457-2117, or Box 333, Grandville, Michigan 49418.



Goldmine

If the recorded music you purchase and listen to is important in the way you enjoy life . . . you ought to know about a goldmine of helpful information for every record collector.

Schwann Record & Tape Guide

is a compilation of information about records and tapes of many classifications. This wonderfully useful catalog uncovers titles you didn't know were available, helps you select versions by conductors and artists whose work you prefer . . . shows you money-saving reprints on budget labels . . . and much, much more.

More than 65,000 records and 8-track and cassette tapes are listed in the monthly *Schwann-1* and its semi-annual companion, *Schwann-2*. All are available through your record dealer if you ask for them by Schwann title and number. Schwann opens up rich rewards in your record collecting hobby. See your record dealer for latest copies.

Schwann-1 Monthly. Lists the month's new releases in every category. Also nearly 45,000 available recordings on 702 record labels, 231 tape labels, 82 quadraphonic labels, in classical, recent popular, rock, jazz, musical shows, country, opera, ballet, electronic, etc. \$1.00 at your dealer's.

Schwann-2 The semi-annual companion catalog for specialized categories: pop more than two years old, classic jazz, classical classics of the pre-stereo era, also the great re-issue catalogs; international pop & folk on domestic labels, spoken, educational, religious, etc. 90c at your dealer's.

SPECIAL PRICE SAMPLE OFFER

If your favorite store doesn't carry Schwann, order samples by mail, but please try your dealer first. Prices include postage and handling.

- ☐ Latest Schwann-1 (monthly) \$1.60
- ☐ Latest Schwann-2 (semi-annual) \$1.40
- ☐ Combination Offer: latest Schwann-1 (monthly) and latest Schwann-2 (semi-annual) \$2.75

- ☐ Newly revised Basic Record Library booklet.
Lists 1,000 suggestions in classical music by musical periods for your enjoyment.
Send 50c for cost of handling and postage.

I enclose \$.....for the items checked above.

Name

Address

City State Zip

Dealer's Name & Address.

Schwann Record & Tape Guide

137 Newbury Street, Boston, Mass. 02116

AU

Listen to TELEVISION IN STEREO



The TE-200 TELEADAPTER EASILY CONNECTS TO ANY TV & STEREO SYSTEM. Using our coupling and matrix circuit, teleadapter takes a low impedance output from the television and delivers two HIGH IMPEDANCE CHANNELS OF SIMULATED STEREO, to drive any amplifier. Frequency response is maintained so you can hear the tinkle of bells or booming bass sounds as it happens on TV. With service warranty and hookup instructions \$16.95 p.p.d. Guaranteed to make your TV 100% more enjoyable.

OUR NEW TE-300 VHF-UHF HI-FI TUNER IS NOW AVAILABLE. A complete and self contained 110 volt tuner. VHF-UHF antenna connections - Recording and amp output jacks. Five year service warranty \$149.95 p.p.d. From our factory.

SEND: ☐ CHECK ☐ MASTER CHARGE NO. for ☐ TE-200 ☐ TE-300 or ☐ \$5.00 for C.O.D. TO: RHOADES NATIONAL CO. DEPT AD P.O. BOX 817 HENDERSONVILLE, TENNESSEE 37075

NAME _____
ADDRESS _____
CITY _____ STATE _____ ZIP _____

FOR SALE

IF YOU BUY AUDIO EQUIPMENT, you can't afford not to read the **Stereophile**. Write Box 49A, Elwyn, Pa. 19063 for free blurb sheet.

ALLISON ACOUSTICS LOUDSPEAKERS have stabilized Radiation Loading. Years of intensive research by Roy Allison (formerly of Acoustic Research, Inc.) on the interaction between loudspeakers and room boundaries has yielded a new high standard of uniform bass performance. New Convex Diaphragm Mid-Range and High Frequency drivers achieve phenomenal wide dispersion (—3db 90 degrees off axis at 20kHz!) Literature and price information available upon request.

SUFFOLK AUDIO, INC.
1105 Mass. Avenue
Cambridge, Mass. 02138
Ph. (617) 868-1080

BALTIMORE-WASHINGTON AREA AUDIOPHILES REJOICE! At last a store for you. Come to Myriad Sound and hear the finest in state of the art audio equipment. Featuring the complete Audio Research line, Polk Audio Model Nines, ESS Heils, Janszen, S.A.E., Altec, Citation, R.T.R. B&O, Thorens, S.M.E. etc. all accompanied by Fred Huggins himself. Main store at 9619 Reisterstown Rd., Garrison, Md. 21055 (2 miles North of Balt. Beltway exit 20) (301) 363-1733.

ENGINEERED ENCLOSURE & CROSSOVER DESIGNS — free w/purchase of our J.B.L., Gauss, Altec, and Community raw drivers and horns. Music & Sound Ltd., 11-1/2 Old York Road, Willow Grove, PA 19090 (215) 659-9251.

Loudspeaker Reconing Labs

PROPRIETARY CUSTOMIZED MODS reduce tone arm friction, damp spurious resonances, minimize torsional forces, improve tracking, and reduce hum and record wear. For S.M.E.'s—\$30.00* For Rabco SL-8(E)—\$100.00. For Transcriptors—free* (*with purchase).

NOW

LISTEN to our calibrated Satin/Denon/F-R/Ortofon/Supex moving coils. B&O/Grace/Micro-Acoustics. From the laboratories of Music & Sound Ltd., 11-1/2 Old York Rd., Willow Grove, Pa. 19090 (215) 659-9251.

+Levinson & Stax Cartridge Preamp+

NORTHERN N.J.'S FINEST AUDIO STORE, 20 minutes from NYC. Ampzilla, Bozak, B&O, Magneplanar, Phase Linear, DBX, IMF, Dahlquist, Urtofon, Quintessence, Thorens, Pioneer, Kenwood, Dual Gale. Write or call - University Stereo, 57 E. Ridgewood Ave., Ridgewood, N.J. (201) 447-5700.

BERKELEY, CALIFORNIA

ADS
M&K
KMAL
Quad
Braun
Fulton
Klipsch
Dahlquist
Audionics
Magneplanar
Connoisseur
Linn-Sondek

STEREO WORKSHOP
2985 College Avenue
Berkeley, California 94705

(415) 843-5838 open 2-8 TWThF; 12-6 Sat

FOR SALE

ATTENTION...

LUCKY OWNERS OF:

DYNA STEREO 70

RABCO SL8(E)

DYNA PAS-3(X)

INFINITY 2000A

DECCA MKV AND "EXPORT"

DYNA MARK III

SHURE SME and

other tubular tonearms

THE DKL LABORATORY, INCORPORATED HAS DEVELOPED UNIQUE MODIFICATIONS ENGINEERED SPECIFICALLY FOR THESE COMPONENTS. NOW YOU CAN GREATLY IMPROVE THE SOUND QUALITY TO "ULTRA DEFINITION".

PRICED FROM \$25.00 TO \$170.00, OUR MODIFICATIONS OFFER VAST AUDIBLE IMPROVEMENTS AT REASONABLE COST.

FOR MORE INFORMATION CONTACT:

DKL LABORATORY, INCORPORATED
BOX 583

SEVERNA PARK, MARYLAND 21146

OR CALL: (301) 588-6257

MONDAY, WEDNESDAY, THURSDAY,

SATURDAY 2-8 PM

WE SPECIALIZE IN ONLY THE FINEST SOUND COMPONENTS—ALLOW OUR STAFF OF AUDIO EXPERTS TO HELP YOU CREATE YOUR "ULTRA DEFINITION" SOUND SYSTEM. CHOOSE FROM THE WORLD'S FINEST COMPONENTS LIKE:

AUDIO RESEARCH—electronics and speakers

BGW—power amplifiers

DBX—noise reduction systems, dynamic range enhancers

"HAND-TUNED" DECCA MKV—cartridges

DYNACO—tube electronics

FULTON—regular and MODULAR speakers

HK CITATION—amps, tuners

IMF—"MONITOR-ORIENTED" speakers, kits, sub-woofers

LINN—SONDEK—turntables

MAGNEPAN—speakers

M & K—sub-woofers, matrix systems

PAOLI—tube amplifiers

RABCO—turntables

RTR—electrostatic speakers

SOUNDCRAFTSMEN—pre-amps, equalizers

STAX—electrostatic headphones

"SUPER SHURE" SME—tonearms

TANNOY—turntables, speakers

AND SCORES MORE.

WASHINGTON D.C., MARYLAND, VIRGINIA

AREA RESIDENTS TAKE NOTE—

YOUR "STATE-OF-THE-ART" DEALER IS:

DKL SOUND LAB

943 BONIFANT

SILVER SPRING, MARYLAND 20910

Hours: MONDAY, WEDNESDAY, THURSDAY,

SATURDAY 2-8PM FRIDAY BY

APPOINTMENT ONLY, CLOSED TUESDAY

(301) 588-6257

STATE-OF-THE-ART comes to NORTH-CENTRAL FLORIDA, serving you with: AUDIO RESEARCH, Citation, Crown, Dahlquist, Denon, Dynaco, Fidelity Research, DBX, G.A.S. Co., Hartley, Infinity, Magneplanar, Mark Levinson, Ortofon, Rabco, Revox A-700, SME, Supex, Thorens, Transcriptors, and \$10,000 worth of test equipment for in-store audio analysis. We maintain a mobile recording van and sell professional recording equipment. **AUDIO, ETC., INC.**, 1999 N.W. 43rd Street, Gainesville, Florida, 32605, 1-904-377-4107.

BUY! SWAP! SELL! Your personal ad placed FREE in Audiomart, the audiophile's classified newsletter. Subscribed \$4 yearly. **AUDIOMART**, Box 821, Stratford, Conn. 06497.

TEAC 1/2 TRACK tape deck model 7030 GSL, mint. \$700 firm. You pick up in R.I. (401) 786-6019.

A FEW competitively priced used Revox A77 decks available. Completely reconditioned by Revox, virtually indistinguishable from new and have the standard Revox 90 day warranty for rebuilt machines. Satisfaction guaranteed. Example A77 with Dolby for \$875 plus shipping. Write with requirements to ESSi, Box 854, Hicksville, N.Y. 11802 (516) 921-2820.

FOR SALE

ALTEC: drivers 802D, 804A; horns 511B, crossover N500D. E-V drivers T25A, tweeters T35. David Fonseca, 555 Notre Dame, Chattanooga, Tenn. 37412.

SONY 777S-4 Deck Mint, \$325. Mel. (212) 881-8283.

CUSTOM MADE LOW CAPACITANCE CABLES — the superior method of interconnecting ALL audio equipment. Manufactured with premium cable and all metal, fully shielded, metal connectors. State length and the type of connector (phono or phone plug) desired \$9.95/pair postpaid. **MM SOUND**, BOX 4082, HAMDEN, CT. 06514.

MOVING COIL CARTRIDGE OWNERS: Your alternative is here! Our MCP-1 Moving Coil Cartridge Preamp, featuring audible superiority at a reasonable price, is now available. For information write R B AUDIO, P.O. Box 574, Eatontown, NJ 07724.

MINNEAPOLIS — High Quality Audio Has Finally Arrived! Audio Research, Bang & Olufsen, Klipsch, Audionics, Radford, Revox, Bozak, Crown, DBX, Sequerra and others'... **THE SOUND ENVIRONMENT**, Butler Square, Suite 114, 100 North Sixth Street, Minneapolis, Minn. 55403, (612) 339-4641.

DYNACO RACK MOUNTS for pre-amps, tuners, integrated amps. \$24.95 postpaid, \$22.50, three or more. **AUDIO BY ZI-MET**, 1038 Northern Blvd., Roslyn, N.Y. 11578 (516) 621-0138

PROFESSIONALLY SPEAKING... Klipsch, Nakamichi, Crown, Yamaha, SAE, Bose, Burwen, DBX, Soundcraftsmen, Transcriptor, Microacoustic, Teac, Sonab, Dokorder, Supex, Grace, JBL. For that extra personalized service visit — **HAL'S STEREO SOUND CENTER, INC.**, RT. 1 & Texas Ave., Trenton, N.J. 08638, 609-883-6338.

MARANTZ MOD. 8 power amp, 30-30 wttts, mint, \$250. C7 preamp with case, mint, both new tubes, \$300. Harold, 7703 Cullen, Houston, Texas 77057.

MCINTOSH 2105 \$550.00. **JANSZEN TWEETERS MODEL 130's** \$275.00/PR. PRICES NEGOTIABLE (615/693-4874)

LOW NOISE RESISTORS—1/4W, 5% carbon film from 10-3.3 Megohm for 3 1/2 each. Fifty per value is \$1.25. **1N4004, 1N4148** diodes. Postage 75c. **COMPONENTS CENTER**, Box 134A, New York, N.Y. 10038.

ABSOLUTELY THE LOWEST PRICES on name brand stereo components. Send for our free catalog to **BOSTON AUDIO EXCHANGE**, 1589 Commonwealth Avenue, Brighton, Massachusetts 02135.

MUST SELL AKAI GX280DSS Tape Deck. Original carton and manufacturer's warranty. Never used. No reasonable offer refused! Larry Riley, 4A Couch Street, Plattsburgh, N.Y. 12901. (518) 563-2102

MARANTZ 10-B. Complete set of spare tubes \$750. Glenn English, (512) 478-2054.

TDK C-90 Dynamic Cassettes. BASF 90 minute 8-tracks \$1.49 — over nine \$1.29. Postage Paid. 10 1/2" Fiberglass Reels \$7.50 for 30. Pete Kuruzovich, 24575 Donover Rd, Warrensville Hts. Ohio 44128 216-292-2864

BURGLAR alarm dialing unit automatically calls police. \$29.95. Free literature. **S&S SUPPLY**, Box 12375H, North Kansas City, MO 64116.

AMPZILLA — THAEDRA

Sound Advice, 536 State Road, Emmaus, Pa. 18049. Hours: Daily 8-9:30; Sat. 10-6.

SOUND ADVICE MAGAZINE — Don't miss our first issue with review of 18 amplifiers from Accuphase, Ampzilla, Audio Research, Bozak, Crown, Dynaco, Epicure, ESS, Harmon Kardon (12 and 16), Infinity (Class D), McIntosh (2300), Paoli, Phase Linear 400, Quatre, Quintessence, Sony V-FET, and Yamaha FET. We also tested 17 cartridges from ADC (XLM-II and Super XLM-II), B&O, Decca (V and export), Denon (DL103 and DL107), Fidelity Research, Grace, Micro-Acoustics, Ortofon, Satin, Stax, Supex (900, 901, and 900 prototype), and Win Labs. Our second issue will look at speakers and preamps. Subscribe now and guarantee yourself a copy of our highly controversial first issue. 4 issues for \$9.00 (\$11.00 first class; \$12.50 foreign, sent airmail). **SOUND ADVICE**, 225 Kearny, No. 200B, San Francisco, California 94108.

FOR SALE

N. CALIFORNIA'S CUSTOM IMF DEALER is now offering:
IMF SMALLER MONITOR — Smaller version of the world-acclaimed MONITOR!

IMF MODEL RII Flat to 20 Hz. Stunning transient attack! Uses new version of KEF flat woofer. At \$330 — extraordinary!

IMF SUB-WOOFER KIT — Dual transmission line system flat to 8 Hz — \$250!!

STUDIO IIB and MONITOR MK IV — Both newly "impulse" revised!

Custom demonstrations in The IMF Listening Room. For information and/or listening appointment, write or call Russ Goddard, **CUSTOM IMF DEALER**, 1171 W. Latimer, Campbell, California 95008. (408) 374-4897.

Mail order customers: For your convenience, all orders are shipped prepaid and insured, by air!

BUY DIRECT FROM ENGLAND'S HI-FI MAIL ORDER SPECIALISTS! Save on B&O, Celestion, Decca, Tandberg, Revox, Transcriptor, Jordan-Watts, Lowther, KEF, Rogers, SME, Ariston, HPD, Sugden, Radford, Neal, Ferrograph, etc. Shipping lists free or send \$3.00 bills to include literature. Goodwin Ltd., 7 Broadway, Woodgreen, London N.22. Phone 01-888-0077. Visitors welcome.

SURPRISE! SURPRISE! Digital Piano Tuning Device tunes musical instruments Accurately! Perfectly! Inexpensively! Construction-Instruction Plans Complete \$12.95 Airmailed Postpaid! Moonlighting quickly repays \$40 electronics investment! **GREEN BANK SCIENTIFIC**, Box 100E, Green Bank, WVa. 24944

RUMBLESEAT RECORDS — new label — Big Band Era. Send for free catalogue. Rumbleseat Records, P.O. Box 233, Irvington, N.Y. 10533.

SOUNDCRAFTSMAN RP2212, \$275.00, ADVENT 100, \$175.00, ORTOFON ARM, \$50.00, SPEAKERS — PIONEER CS33's, \$120.00 pair, AR4X's, \$110.00 pair (615/693-4874)

ST. LOUIS' LEADING QUALITY AUDIO DEALER—Featuring the following equipment:

AUDIO RESEARCH		
ACCUPHASE	PHILIPS	
AKG	QUAD	
ALTEC PRO	QUINTESSENCE	
B & O	REVOX 700	
BOZAK	RTR	
CITATION	SCULLY	
DECCA	STANTON	
EPICURE	STAX	
KMAL	TANDBERG	
LINN SONDEK	TECHNICS	
NAKAMICHI	UHER	
PHASE LINEAR	YAMAHA	

and others

Equipment tested before being shipped prepaid.

J.C. Gordon Company
 2831 Hampton Avenue
 St. Louis, Missouri 63139
 (314) 647-8866
 Since 1927

NEW GENERATION Crown Amplifiers, Cleanest, Smoothest sound ever produced — Crown D1200/HP1200, on demo only at Barclay Recording, 503 Haverford Ave., Narberth, Pa. 19072. (215) 667-3048.

LOOKING FOR U.S. MANUFACTURER of high class audio equipment to be represented exclusively in the Far East. Transaction on irrevocable L/C basis. Send details to: Kudo Audio, 1-4 Misumi, Higashi Murayama-shi, Tokyo, Japan.

HEWLETT PACKARD 333A—\$795, Telequipment D75-\$1200 both mint, 6 mo warranty remaining. Tektronix 513D, works, best offer. Wideband Corp. P.O. Box 4546, ABQ, NM (505) 821-7910

NORTHWEST'S FINEST — Audio Research, Audionics, Braun, BGW, Burwen, Crown, Dahlquist, Dayton Wright, Decca, Fidelity Research, FMI, GAS, Hartley, IMF, Infinity, Linn Sondek, Mark Levinson, Nakamichi, Quad, Quatre, Quintessence, Radford, Saquerra, Supex, Tandberg, Transcriptor, Yamaha, also Custom Designed Superwoofers, and many more. **HARTLEY ELECTRONICS**, 1502 Butternut, Richland, WA 98352. (509) 946-4459 until 6:00 PM, then 947-5026 evenings.

FOR SALE

- (2) JBL 2215's — 90.00 ea.
 - (1) Hartley 224MS — \$175.00
 - (2) Quad ESL's w/Quad 22 and pr. Quad II's — \$500.00
 - (8) Bozak B-199A woofers — \$40.00 ea.
 - (5) Bozak B-209's (8 ohms) — \$40.00 ea.
 - (1) University Dean folded horn — \$200.00
 - (1) Tannoy 15" Monitor w/Shraeder horn — \$110.00
 - (2) Altec 604C's — \$95.00 ea.
 - (1) University 312 (horn) — \$20.00
 - (1) University 312 (dome) — \$45.00
 - (1) Wharfedale model 60, unfin. — \$40.00
 - Koss ESP-9's — \$90.00
 - McIntosh C-8, C-8S — \$100.00 pr.
- NEW EQUIPMENT:**
- (2) E-V T-35's — \$22.50 ea.
 - (2) JBL LE-15A's — \$110.00 ea.
 - (2) Bozak B-800's — \$45.00 ea.
 - (4) Bozak B-200Yc's — \$35.00 ea.
- Craig Preston, 152 Hayden Rowe St., Hopkinton, Mass. 01748

AUDIOPHILES! Quality Sounds of Maryland has come to your rescue. Write to me for system quotes you won't believe! Send requests for equipment prices to Quality Sounds of Maryland, Gerard White, Sales Manager, P.O. Box 63, College Park, Maryland 20742.

DYNA STEREO 70 MOD KIT. Tighter bass, improved transient response, higher definition. Complete instructions, schematics, parts list, \$5.00. With parts kit, including all new tubes, \$58.00. Or we will modify \$105.00 all postpaid. Audio Designers, Box 122, Ledyard, Conn. 06339.

DYNACO STEREO 400, PAT 4, B.I.C. 980, (617) 888-4846

PHASE LINEAR 700 AMP \$400, SAE MK 12 speakers \$300, Crown IC-150 pre-amp \$275, McIntosh MPI-4 Audio Oscilloscope, Hank Batts, 2104 Lakeside Dr., Lexington, Kentucky 40502.

Audio Research	M & K	Fidelity Research
Quintessence	Gale	Mark Levinson
Techniques	KMAL	Connoisseur
Dahlquist	Supex	Magneplan
Hartley	Yamaha	Sequerra
Quatre	Win Labs	Fulton
Braun	Audionics	Grace
SME	Nakamichi	Stax
SAE	Linn Sondek	DBX

GARLAND AUDIO, INC.

2960 Stevens Crk. Blvd.
 San Jose, California 95128
 (408) 244-6724

KLH 52 — \$245; Dynaco A-25XL's — \$187; BSR210X \$54; Koss Pro-4AA — \$50. Call John — (412) 355-0472.

IN PURSUIT OF EXCELLENCE WE OFFER: Infinity, Crown, Revox, Fulton, Sennheiser, Philips, Ortofon, ESS, SAE, Beyer, DBX, Altec, Technics direct drives, RTR, McIntosh, JBL, Transcriptors, Klipsch, Citation, Decca, SME, Sequerra, Micro-Acoustics, Lamb, Dahlquist, Tannoy, Yamaha, Soundcraftsmen, Marantz, and more... Also custom room equalization, individually damped Altec & JBL Monitors and an ongoing equipment evaluation program, The House of Sound, 821 Kent Ave., Baltimore, Md. 21228.

FLORIDA AUDIOPHILES! Phase Linear, I.M.F., B&O, H/K, Marantz, Quatre, Thorens, Sony, Klipsch, Revox, Barzilay cabinets. Sales and expert repairs. **INTERIORS PLUS SOUND**, 3038 N. Federal Highway, Ft. Lauderdale, Florida 33306. (305) 566-3511.

CROWN IC-150, \$225, D-150 \$325, both w/case \$500 together, PIONEER TX-9100, \$175. Kruit, R.R.3, Birnamwood, Wis. 54414.

PAIR KLIPSCHORNS: Crown IC-150, D-150; Phase Linear 400; all mint. D. Lee, One Chase Manhattan Plaza, NY, NY 10005; 422-3000 days; 675-9195 eves.

REVOX A-700, perfect condition. \$1350. (313) 382-1184.

LOUDSPEAKER MOUNTING KITS — Includes 4 die-cast clamps, 4 plated 1/4-20 screws, 4 - tee nuts and gasket. \$4.00 ppd. Minimum order 6 kits. Please specify speaker size. LTC Audio, 14244 Vanowen Street, Van Nuys, Calif. 91405.

CASSETTE LABELS

Plain white cassette labels, Norelco cleaners, Norelco type plastic box, famous brand cassettes. Send for open reel and cassette discount catalog.

	1-9	10-99	100	1000	10M
Cassett Labels (Multiples of 10)		.02	.015	.01	.006
Norelco Cassette Cleaner	.65	.60	.55	.50	.45
*Scotch Cassette SC90HE	2.72	buy 2 get 1 free			
*10 1/2 metal reels used	1.00	1.00	.90	.80	.70
Plus Postage by Weight and Zone	Minimum Order, \$5.00				

OPEN REEL STEREO TAPE BUYERS!

At last! An open reel catalog, including titles, songs, etc. of 95 long play, 2-3 hour albums, by American Airlines or Ampex 4 track stereo tapes. Send \$1.00—and we will also mail you a 140-page Harrison stereo tape guide—so you'll get both for \$1.00—and this \$1.00 is refundable on your first \$10.00 purchase of open reel stereo tapes at our 30% discount.



SAXITONE BICENTENNIAL TAPE SHOPPE

1776 Columbia Rd., N.W., Wash., D.C. 20009

FOR SALE

FREQUENCY EXTENDER-EQUALIZER

Model EQ3200. New! In limited production. Ask your dealer or contact Burwen Laboratories, Dept 11, 209 Middlesex Turnpike, Burlington, Massachusetts, 01803 Tel. 617-273-1488

TRAVELING TO ENGLAND? Then visit Guildford HiFi for the finest audio equipment including Accuphase, AKG, Gale, B&W, Decca, Dual, Stax, Quad, Linn Sondek, Nakamichi, Supex, SME, Sugden, Teac, KMAL, Technics, Watts, Yamaha, Zerostat, etc. Only 25 minutes from London. 270 High Street, Guildford, Surrey, (0483) 71534

Dayton-Wright SPS pre-amp, Epicure "1" Power amp. Technics SL-110A with improved SME Tonor arm with ADC-XLM & Super XLM cartridges. Advent FBC equalizer, Kenwood 6005 Tuner and Infinity Monitors. All Equipment 6 months old with warranty cards. Call Gordon 216-637-9199

ATTENTION

WESTERN NEW YORK AUDIOPHILES

The word is getting around!! Our personalized, honest service and quality equipment make a winning combination. In addition to the incomparable **AUDIO RESEARCH** line, (T-1B's black/natural in stock), we carry AMPZILLA, SAE, Phase Linear, Yamaha, Quintessence, LEVINSON, B&O, IMF, MAGNEPLAN, M&K Subwoofers, Hegeman, Infinity, RTR, ESS, DAHLQUIST, Fulton Music, QUATRE, Onkyo, Connoisseur, Technics, Thorens, Dynaco, Transcriptors, Cerwin Vega, Soundcraftsmen, Supex, Ortofon, ADC, Micro-Acoustics, Damped SME, Linn Sondek, KMAL, Naim Audio, etc. The Stereo Emporium, 3407 Delaware Ave., Buffalo, N.Y. 14217. (716) 874-3372.

TRANSIENT OUTPUT MONITOR for audio amplifiers. L.E.D. readout indicates 1/4 to 1000 watts average and transient power output. Hand assembled, calibrated, tested, \$100. Free literature. Analogic Design, P.O. Box 7753, Phila., Pa. 19101.

ROGERS B.B.C. MONITOR, B&W Ltd., Celestion, Radford, Decca, ERA, Connoisseur, Audionics TL-90, Goldring, Revox, Beyer, Lamb and more. Custom design and modifications. **SUFFOLK AUDIO, INC.** 1105 Mass Ave., Cambridge, Mass. 02138 (617) 868-1080.

SAN DIEGO, CALIFORNIA

ADC, Advent, AKG, AR-LST, Audio-Research, BGW, Citation, Crown, Dahlquist, DBX, Dynaco, FMI, Janszen, Linn Sondek, Magneplanar, Marantz, Micro-Acoustics, Ohm, Phase Linear, Philips, Quintessence, Rabco Revox, RTR, Sennheiser, SME, Stax, Supex, Tandberg, Yamaha.

Sound Company

4701 College Ave., (714) 582-4148
 3675 Sports Arena Blvd., (714) 224-2844

THE FIRST (1962) UNDERGROUND audio publication of them all, the **Stereophile** is the subscriber-supported perfectionist's magazine the others are trying to imitate. Free dope sheet explains why. Box 49A, Elwyn, Pa. 19063.

WESTCHESTER AND FAIRFIELD COUNTY AUDIOPHILES TAKE NOTE! THE AUDIOPHILE, 231 BEDFORD STREET, STAMFORD, CONN. specializes in equipment for the connoisseur. Ampzilla, Audio Research, ADC, Citation, Crown, Dahlquist, Dyna, Epicure, Infinity, Philips, SAE, SME, Stax, TEAC, Technics, Thorens and many more (203) 348-3551 (Closed Mondays).

FOR SALE

FREE details... A DIFFERENT KIND OF RECORD CLUB

Discounts up to 73%, no "agree-to-purchase" obligations. All labels, Schwann catalog of thousands of titles; classical, pop, jazz, country, etc. Discount dividend certificates. Newsletter; accessories; quick service. 100% iron-clad guarantees. Write for free details.

DISCOUNT MUSIC CLUB, INC. DEPT. 14-105
650 Main Street, New Rochelle, N.Y. 10801

DON'T PAY THE HIGH MAIL ORDER PRICES. THIEVES WAREHOUSE OF MOBILE, 1770 BELTLINE HIGHWAY, MOBILE, ALABAMA 36609.

OHM'S LAW slide rule \$1. Norvex Co., 3920 Larkin, Norfolk, VA 23513.

TUBE EQUIPMENT: McIntosh, Marantz and Dynaco. Klipsch speaker wanted. 4430 Wheeler, Houston, Texas. (713) 747-4682.

A TOTALLY NEW AUDIO EXPERIENCE, the Video Image Programmer produces vivid color images on color TV receivers from stereo program material. Attaches directly to stereo and TV antenna input. \$99.00 complete. Dealer inquiries invited. For complete information, write to OSI, P.O. Box 374; Hudson, Ohio 44236.

EPICURE TOWERS — Model 1000 loudspeakers. 6 1/2" tall original cabinets with three-month old recently developed drivers. Regularly \$1,000 each, asking \$595. each or best offer. For further details and listening demo call (609) 883-6339 after 10:00 A.M.

LOOKING FOR HIGH QUALITY "PREVIOUSLY OWNED" MERCHANDISE? Referral/resale service for industrial and professional audio equipment. All merchandise guaranteed to meet manufacturer's specification for 12 months (parts, labor, and round trip shipping included). Call or write OH-RWERKE, 40 High Street, Guilford, Conn. 06437, (203) 453-5285.

AUDIO RESEARCH D-51 Amplifier. Very little used. Perfect condition throughout. \$495. T. Paide, 1805 Alcan, Silver Spring, Md. 20902. (301) 681-7462.

SOUND ADVICE FOR AUDIOPHILES: Over 70 brands; low prices. Write for quotes — Sound Advice, 15260 N.W. 60 Ave., Miami Lakes, Fla. 33014.

DON'T PAY THE HIGH MAIL ORDER PRICES. THIEVES WAREHOUSE OF BETHESDA, P.O. BOX 34251, WEST BETHESDA, MD. 20034.

AN IMPORTANT ANNOUNCEMENT

Parnassus Audio is now producing a full Class A (not AB) stereo power amplifier capable of relatively high output power.

The amplifier additionally satisfies the theoretical criteria for completely eliminating transient intermodulation distortion.

The difference in sound quality between this amplifier and conventional amplifiers is easily audible, even to the inexperienced.

Dealerships will be limited.

Address all inquiries to: **PARNASSUS AUDIO, 2918 Harper Street, Berkeley, California.**

CERWIN-VEGA PRODUCTS

(312) 581-7436

For Sale-MC-C-24 preamp w/walnut case-\$175. Marantz 240 B/amp \$325. Phillips GA212 turntable w/new Audio Technica-12E cart \$145. All excellent condition. Sold together \$600. G. Ryans 13 Surney Rd., Woburn, Mass. 01801. 617-935-4542.

DON'T PAY THE HIGH MAIL ORDER PRICES. THIEVES WAREHOUSE OF FT. WALTON BEACH, 652-D BEAL PARKWAY, N.W., FT. WALTON BEACH, FLORIDA 32548

MARANTZ 3300, \$300 — Year old; mint. Selling to purchase 3800. Herbert, 1-207-594-8468.

STEREO COMPONENTS: Over 50 brands & accs. List 50¢ refundable Custom Audio c/o Dick Walen 4226 Robert St. Red Wing, Minn. 55066

MAGNEPLANAR TYMPANI 3-A's, mint, neutral fabric, with bass screens. Call (919) 449-4132.

FOR SALE

Sony MX-12 Mic. Mixer. Mint. \$50.00. Garrard SP-20b Manual Turntable \$20.00. Shure M91ED Cartridge. Needs Stylus \$9.00. Dick Walen 4226 Robert St. Red Wing, Minn. 55066

AMPEX 300/350 HEAD NEST with Nortronics QK76's, \$60; Viking Transport, \$45; Sony 464-D, \$65. Send for list of others. H. Regan, P.O. Box 34045, Bethesda, Maryland 20034.

MCINTOSH MX-110 tubed preamp-tuner with Mullards and case, \$350. Levinson, JC-1, \$150. Supex SD900, \$75. Shure M64 preamp \$30. (617) 648-4191.

IMPROVE SIGNAL TO NOISE RATIO on tape equipment by actually measuring any damaging magnetic residuals, then really demagnetizing with the powerful, sine wave Han-D-Mag. Professional Han-D-Kit \$68.50 delivered USA on pre-paid orders. Literature and Article reprint available. ANNISCO, 1103 N. Delaware, Indianapolis, Ind. 46202. Phone (317) 637-9282.

PRIVATE HI-FI UNITS. Tape - Roberts 990 & 770XSS, Concertone 802 Revers-a-matic, Viking 811R Cartridge, Concord 400, Panasonic RS-810-S. Phono—Garrard SL-95. Tuners—Fisher R-200, FM 100B. Amps - 2 MAC 30 Tube, Marantz Model 15. Also Zeiss Binoculars and Roliflex Camera with F3.5 lens. Best offer. (312) 323-6071 (evenings); (312) 263-5451 (days).

IN STORE DEMONSTRATION and private appointment showroom featuring natural high definition sound from Audio Research, Magneplan, Fulton, Audionics, Radford, ESS, RTR, Quatre, Braun, Sony Corp., V-FET's, SME, Thorens, Stax, Supex, Grace, Soundcraftsmen, Burwen, Marantz, Transcriptors, and more... also custom sub-systems and electronics modifications from our highly qualified service department. Audio-Tronics, Ltd., E. 120 Wellesley, Spokane, Wash. 99207. (509-484-1300).

MINT USED EQUIPMENT. Citation 11a Preamp w/case \$290; Citation 12 Amp \$225; CM Labs CC-2 Preamp w/case \$175; SAE Mk IVc Amp \$350; Audio Research Tympani III Tweeter-Midrange \$600; Audio Research Dual 51 Amp \$500; Audio Research EC-3 Crossover \$475; Audio Research Tympani III complete \$1050; Marantz 7c Preamp \$225; Panasonic SP-10 Turntable \$310; Shure SME 3009 Tonearm \$100. SOUND ADVICE, 536 State Road, Emmaus, PA 18049. Hours: Daily 6-9:30; Sat 10-6.

ADVENT 201 - asking \$250 plus 10 TDK SD cassettes (C-90). Call (212) 867-6570 - ask for Rolando from 9 to 5.

CURRENT AND RECOMMENDED:

SUPLEX SMM5 moving magnet cartridge. Not the best but exceptionally smooth. Nothing can touch it for \$50.

GRACE 940 oil damped, uni-pivot tone arm. \$149.

LUX 1500 stereo receiver. 75 per channel @ 8 ohms, less than .05 THD 20-20000, capture ratio 1.3. We bother to import it because we think it is the best. \$800.

FIDELITY RESEARCH cartridge and transformer. The best moving coil yet. Highly regarded even by resident Decca freak. Great depth of image and detail. Also variety of preamps. Cart. \$130, Toroidal transformer \$150.

GALE speaker. Very accurate British bookshelf. \$385. each. **CAMBRIDGE AUDIO** P70 and P140 integrated amplifiers with toroidal power supply and state of art preamp. \$350 and \$550. Also TL100 and TL200 transmission line speakers. \$400 and \$500 each.

DECCA BRUSH. Over a million conductive bristles eliminate need for liquids and reduce static. \$15.

DECCA CLEAN-UP. The ultimate dust bug. Same bristles as brush, conductive shaft and grand wire. \$15.

also: GAS Ampzilla, Dayton Wright, C/M Labs, Lux, Radford, Yamaha, Sony, BGW, Audionics, Revox, FMI 80, Celestion, ADS, IMF, Transcriptors, Technics, Fons, Connoisseur, Dual 601, 901, Decca Export, Ortofon, ADC, Sennheiser, Beyer.

Shipped free anywhere in U.S. and Canada.

GREENWOOD SOUND, INC.

5331 S.W. Macadam

Portland, Ore. 97201

503-224-1776

the Water Tower at John's Landing

FOR SALE

CYBERACOUSTIC LABORATORY is a research and development center combined with the most scientifically advanced audio/acoustics lab; featuring Crown, IMF, Mark Levinson, Nakamichi, Burwen, UREI, RTR, DBX, Ortofon, Decca, HK-Rabco, AKG, and more. Crown tape recorder specialists. Send for free catalog! 503 Haverford Avenue, Narberth Pa. 19072. (215) 667-3048.

SOUNDAMERICA — Northern Minnesota's finest Audio dealer. Crown, SAE, Infinity, Yamaha, Ortofon, Shure, Thorens, Pioneer, Sony, Kenwood, E-V, Teac. Finest selection — will ship prepaid. **SOUNDAMERICA** 2116 Maple Grove Rd., Duluth, Minn 55811

TARZAC

Cassette-cartridge labels: custom-blank. Capitol Cartridges: 28 through 100 minutes. Cassettes. Storage Boxes. 638 Muskogee Avenue, Norfolk, Virginia 23509.

FLORIDA'S LARGEST AUDIO RESEARCH DEALER. Full Audio Research Systems on display SP3-A-1 Dual 76A/Dual 150/Dual 52/Magneplanar Tympani 1 C/Tympani IV. Plus AR. B&O, Crown, Denon, Fulton, IMF, Magneplan, Marantz, Mark Levinson, Nakamichi, Paoli, Phase Linear, Revox, Russound, SAE, Satin, Sequerra, Sherwood, Shure, Stax, STR, Supex, Tandberg, Technics, Transcriptors, Uher, Yamaha. **SOUND AND SIGHT, INC.** 20 N. Federal Highway, Boca Raton, Florida 33432, (305) 391-1843.

EDITING RECORDS ONTO RECORDING TAPE? The Tape Measure™ computes the running time remaining on a partially used reel of tape quickly and accurately. Perfect for editing anything of known time duration onto tape. Unique double-slide calculator works for 10 1/2", 7" & 5" reels, compensates for tape thickness and adjusts for tape speed. Satisfaction/money back guarantee. Send check or M.O. for \$2.49 plus 35% shipping & handling for each to Rothchild Printing Co., Inc., 7900 Barnwell Ave., Elmhurst, N.Y. 11373.

AUDIOPHILES WANTED!! Put your knowledge to use, earn an excellent spare time income. We need campus representatives to sell name brand stereo equipment at substantial discounts in your area. No investment necessary. For information and application please write: ABCO, Campus Rep Dept., 915 Grand Avenue, New Haven, Conn. 06515.

MARANTZ 3300, \$250. Marantz Model 1, \$120. Ampex F-44, \$175. Ampex 970, \$175. ADC arm, \$35. Sony PUA237, \$35. SME 3012, \$60. Stanton 681EE/A, \$30. R. Vanderbilt, 1800 Shore Blvd., Pt. Pleasant, N.J. 08742.

CAROLINA'S ONLY AUDIOPHILE CENTER — Infinity Servo-Statiks, Switching amp, Ampzilla, Dahlquist, Magneplan, FMI, Ortofon, Crown, Accuphase, SME, Decca, Hegeman, Klipschorn, Technics, Teac, Marantz, Harmon Kardon on demonstration.

Vickers Audio

210 West Franklin St.

Chapel Hill, No. Carolina 27514

(919) 929-4554

CROWN SX-724, IC-150, D-150, Burwen, RTR HPR-12 Magnums, Nakamichi 700. (215) 942-2161.

UTAH'S OLDEST, FINEST AUDIO SPECIALISTS

McIntosh

Infinity

Servo Statik IA

DSP Amp

B&O

Yamaha

Tandberg

Nakamichi

Levinson

Bozak

JBL

Pioneer

Supex

Stanton

AKG

DBX

WINTERTON'S AUDIO

Salt Lake — 2164 Highland Drive

Provo — 83 North University

Price — 20 North Carbon

YELLOW PAGES OF AUDIO—Comprehensive reference to professional as well as consumer audio products and manufacturers. FREE classified advertising information and copy form available with each issue. \$1.50. Box 94, Colmar, Pa. 18915.

FOR SALE

STEREOPUS — If you're considering purchasing ANY new audio equipment this fall, don't be without our new quarterly review journal. We give the straight scoop to assist you in making the right decision \$9.00/year (four issues) \$11.00 first class, \$12.00 foreign. P.O. Box 269, Fort Walton Beach, Florida 32548.

MAGNEPLANAR T-III-A midrange/tweeter panels. Off white with feet; warranty transferrable. \$700. D. Theis, 3851 Reading Road, Cincinnati, Ohio 45229.

REVOX A77 MK. III, very good condition, \$400. Crown D-150 Mint \$300. (607) 648-9479

SERVICES

CONSUMERS — We recommend components and systems and make your needs and budget to the best performance available. Satisfaction guaranteed. Send \$3.00 to: FSC, 219 E. 17th St., Bloomington, Indiana 47401.

CUSTOM RECORDING SERVICE, Tapes, discs, and cassettes. Stereo and mono. Live and copies. Editing. Masters and pressings. High quality at reasonable rates. Joseph Gliovanni, Audio-Tech Laboratories, 2819 Newkirk Ave., Brooklyn, N.Y. IN9-7134.

CUSTOM TAPE DUPLICATION 8 track and cassette. We specialize in small runs. CUSTOM AUDIO c/o Dick Walen, 4226 Robert St., Red Wing, Minn. 55066.

MASS PRODUCTION-CUSTOM REPRODUCTION — 8-Track, cassette & Reel to Reel. We specialize in corporate meetings. Call or write T.S. Recording c/o T.C. Shearer, 385 Ocean Blvd., Suite 5C, Long Branch, N.J. 07740, (201) 870-2952.

COMPLETE CUSTOM RECORDING SERVICE — Record pressing, cassette duplication — editing — location recording. Omega Audio, 25520 Graham, Detroit, Mich. 48239.

BIG DISCOUNTS on Hi-Fi components. 50 lines in stock. ORDER TOLL FREE (800) 421-8537 (except Calif., Alaska, & Hawaii), or write: HENRY'S Camera & Hi-Fi, 516 W. 8th St., L.A., Calif. 90014.

THE NEW YORK AUDIO SOCIETY INC. is a unique, non-profit, member supported hi-fi club featuring interesting monthly meetings about sound and the latest audio techniques. We invite all N.Y. area audiophiles to attend one of these sessions as our guest. Details about meetings and membership available. Write Box 5889 Grand Central P.O., N.Y.C. 10017. Call 212-722-2781.

STEREO MASTERS, RECORDS AND ALBUMS. Check our prices. Newest type high level cutting equipment featuring: Neumann VMS 70 Computer control lathe, Parametric Equalization, Dolby, DBX, and the new SX74 Cutting System by Neumann. Special package prices on pure vinyl album and single record production. 1000 45 RPM stereo singles \$273.00 including mastering. 100 LP albums \$436.00 including printed jackets. Write or call for brochure. A & R Record Manufacturing Corp., 902 N. Industrial Blvd., Dallas, Texas 75207. (214) 741-2027.

SWISS-MEN (25) change music-tapes in English, German or French. Urs Beerhalter, Ringstr. 7, CH-3052 Zollikofen, Switzerland.

SONGWRITERS

Present your songs to publishers like professionals. By mail or in person, find out the correct way. Also find out where to get the right business contacts. Write for this valuable and informative booklet. Send \$3.00 to:

SUNSOUND

256 S. Robertson, Dept. 1558
Beverly Hills, Ca. 90211

TAPE RECORDER HEADS brought back to spec. Wear removed. Brilliant finish. \$10.00 each. One day service. E. Maher, 5 Evans Place, Orinda, Calif. 94563.

DON'T PAY the high mail order prices. Thieves Warehouse is coming to your area. Franchises available. Thieves Warehouse, P.O. Box 8057, Pensacola, Florida 32505.

SERVICES

HIGH FIDELITY SPEAKERS REPAIRED
AMPRITE SPEAKERS SERVICE
655 Sixth Avenue, New York, N.Y. 10010
212-CH3-4812

NASHVILLE RECORD PRODUCTIONS WILL PRESS HIGH QUALITY PURE VINYL RECORDS FROM YOUR TAPES. SEND FOR SAMPLE RECORD AND PRICE LIST. ALSO FINEST DISC MASTERING. 469 Chestnut St., NASHVILLE TENNESSEE 37210.

PLANS & KITS

CONSTRUCT YOUR OWN speaker enclosure. Send \$2.00 for drawing to: Creightney Sounds, 140-25 169th Street, Jamaica, N.Y. 11434.

EQUIPMENT WANTED

CASH FOR Mint Ips & prerecorded reel tapes. Records, Box 323, Hillburn, New York 10931.

MARANTZ 7C, 9: McIntosh C22. John Fong, 1238 Green St., San Francisco, Calif. 94109.

MCINTOSH 275. Call collect (313) 331-0453.

A.R. RECEIVER. Easton, 747 Amana St. No. 2218, Honolulu, Hawaii 96814.

NEED ACRO 300 Ultra Linear Output transformer new or good condition. Will pay fair price. Maathuis, 510 16th St., Ogden, Utah 84404.

SONY TTS-3000A turntable, Base mint only, Infinity 2000A speakers, rosewood. Dean Slindee, Box 55, Lansing, Iowa 52151.

WE MUST HAVE YOUR USED COMPONENTS

Premium Trade or Cash for:

McIntosh tube (pre) amps & tuners, Marantz tube (pre) amps 7 tuners, Marantz 7(T), 15, 16 (B), Futterman H-3, J.B.L. 400, 500, 600 series electronics, J.B.L. Hartsfield, L-101, Metrogon, Minigon, Music & Sound Ltd., 11 1/2 Old York Rd., Willow Grove, Pa. 19090. (215) 659-9251.

WANTED: NEW OR USED ALTEC Barcelona, JBL L101, Olympus, McIntosh C22, C28, Mr. Kazuhiko Murota, 1-67-203, Tsurumaihashi, Nara City, Japan.

HERESY, CORNWALL, JBL, Klipschorn, Bose 901. Bruce Faulkner, 24 School Street, Keene, N.H.

WANTED: MCINTOSH MC-275, MR-71 tuner. Mr. Yuzi Ikeda, 3-4-7 Nakamagome ota, Tokyo, Japan.

WANT TO BUY Revox-A77 Deck, used but good condition. Will pay up to \$500. Tom Stone, 130 East 18th Street, Apt. 2-U, New York, N.Y. 10003

WANTED: Reel to Reel Tape Deck, Cassette tape deck with speakers and headphones by Soundesign. Write: Hubert Woods, 162 Curry Court, Talladega, AL 35160.

AUTHORS, BOOKS

PUBLISH YOUR BOOK! Join our successful authors. All subjects invited. Send for free appraisal and detailed booklet. Carlton Press (Dept. VRV) 84 Fifth Avenue, New York 10011.

STAMPS

WOW! 110 ALL DIFFERENT GERMANY 10c. Commemoratives, Airmails, High Values, Big Catalog, bargain lists. Also, fine stamps from our approval service, which you may return without purchases and cancel service at any time. Jamestown Stamp, Dept. A105AM, Jamestown, N.Y. 14701.

FREE! BIG BARGAIN CATALOG — NEW EDITION listing thousands of bargains including U.S. & B.N.A. stamps, packets, albums, accessories and supplies. Also, fine stamps from our approval service which you may return without purchases and cancel service at any time. Jamestown Stamp, Dept. E105AM, Jamestown, N.Y. 14701.

TAPE & TAPE RECORDERS

AURATONE®

5C SUPER-SOUND-CUBE™

RECORDING INDUSTRY'S FAVORITE
MIXDOWN MONITOR SPEAKERS
AT YOUR DEALERS OR FACTORY DIRECT!
\$39.95 PAIR POSTPAID
Satisfaction Guaranteed or Your Money Back!
AURATONE • BOX 580-A2 • DEL MAR • CA 92014
— DEALER INQUIRIES INVITED —

SCOTCH RECORDING TAPE, lowest prices TAPE CENTER Box 4305B, Washington, D.C. 20012.

SCOTCH, CAPITOL. Blank cassettes, cartridges, reels. Discount prices. Lawson's, Box 510, Livermore, CA 94550

SCOTCH AND MAXELL TAPE DISCOUNTED. Write and Save. N.A.B. Audio, Box 7, Ottawa, IL 61350

RECORDING TAPE: Custom Loaded, 8 track, reel, cassette. Prices on request. DICK WALEN, 4226 Robert St., Red Wing, Minn. 55066

TDK, BASF, Memorex, Maxell, cassettes, reels, 8-tracks. Lowest Prices, Guaranteed, New. S&S Audio P.O. Box 56039 Harwood Heights, IL 60656

OPEN REELS. Entire Ampex library and more. Major credit cards accepted. 1975 Catalog, \$1 refundable first order. Ampex, Dept. C101, P.O. Box 178, Elk Grove, Ill. 60007

DISCOUNT LIST of blank recording tape, Cassette, 8-track, reel to reel. Send 25c to Staten Island Audio, P.O. Box 580, Staten Island, New York 10314.

HIGH FIDELITY

DYNAKITS, IAD, lowest prices, Underground Hi-Fi Sales, 324 Broadwater Road, Arnold, Md. 21012. (301) 647-0919.

NOW AVAILABLE . . . FAMOUS REFLECTOR SYSTEM'S 4 1/2" REPLACEMENT DRIVERS. \$7.98 POSTPAID. BIG QUANTITY DISCOUNTS, FREE SPECIFICATIONS, AURATONE, BOX 580-23, DEL MAR, CALIFORNIA 92014.

BUSINESS OPPORTUNITIES

BUSINESS INVESTIGATOR DISCLOSES jealously guarded mail order trade secrets. Helps beginners make \$600.00 weekly. Giant free report! Futuristics, 1311 Berkshire, Austin, Texas 78723.

\$500/1000 stuffing envelopes. Nothing to buy or sell. Circulars supplied free! Rush stamped addressed envelope to: K. Heinrich, Box 123-SAJ, Hayes Center, NB. 69032.

SPARE TIME INCOME — Own "Absentee Business". No hassles, minimal risks. Send \$1.00 to ALVERIO, 60 Gouverneur, NYC, Satisfaction Guaranteed!

NYC PUBLICATION Offers. Free Advertising to Members, many extras. Send \$2.00 for sample copy and details to Alverio, 60 Gouverneur, NYC.

RADIO STATION — SW Florida Coast! AM/FM. Partners okay. \$25,000 minimum required. Single station market. Please include resume and/or financial statement with first letter. Reply Box A510-2, c/o Audio.

\$100 WEEKLY POSSIBLE — Stuffing, mailing circulars for advertisers. Home - spare time. Information — Send stamped envelope. Opportunities, Box 721 - AQ, Lynbrook, N.Y. 11563.

DO SIMPLE ADDRESSING — Mailing. Keep \$8.00 profit. Receive \$12.95 orders. Details — Rush stamped envelope. Distributors, Box 9 — AQ, East Rockaway, N.Y. 11518

EARN \$100.00 NIGHTLY PLAYING RECORDS. DISCOTHEQUES ARE IN. COMPLETE DETAILS, DOS, DON'TS, PHOTOS, DESCRIPTIONS, ETC. SEND \$5.00 TO "DYNAMIC UNO," P.O. Box 8116, CORPUS CHRISTI, TEXAS 78412.

RECORDS

SOUNDTRACKS/OC, JAZZ/PERSONALITY — FREE NEWSLETTER! RTSA, 3700 S. Plaza Drive, Bldg F/211, Santa Ana, California 92704.

SOUNDTRACKS, some rare. List 25 cents (refundable). Dave Kiesler, 188A East 93rd St., N.Y., N.Y. 10028

WHO SELLS SCHWANN — 2 records with fast delivery? Lair, Box 698, Sherman, Texas 75090.

CLASSIC FILM MUSIC from "The Jazz Singer" to "Jaws" and Original Radio Broadcasts on long-playing records. Send 25c(refundable) for catalogue. Nostalgiaphon. Box 13205, Whitehall, OH 43213.

SOUNDTRACKS — MOVIES, TV, BROADWAY, RELATED. RARE. \$1.00 FOR CATALOG. REFUNDABLE. "MR. SOUNDTRACKS," 59-359 PUPUEKA RD., HALEIWA, HAWAII 96712.

SHOW ALBUMS — Rare. Out of Print LP's. 52 page list 50c Broadway/Hollywood Recordings Georgetown, Conn. 06829.

5,000,000 SURPLUS Records, Tapes—100 new LP's major labels \$65.00; 60 8-track prerecorded, all major labels \$90.00; 40 prerecorded cassettes, major labels, new \$50.00; 25 open reel prerecorded, all major labels, new \$49.50. Catalogue available \$1.00 refundable with first order. Surplus Records & Tapes, Box 496, Lone Pine, Calif. 93545.

CLASSICAL LPs bought — sold. Junker, 705 - 5th Ave., San Francisco, Ca. 94118.

PERFECTLY CLEAR™ ultra hi-fi record Burwen Laboratories BL-2. The East Bay City Jazz Band — Big Bear Stomp. Oriental Strut. Louis-i-an-i-a Blues My Naughty Sweeties Gives to Me. Dans Le rue d'Antibes, etc. \$10.50 each postpaid \$70.00 postpaid in lots of 10. Send check or money order Massachusetts residents add 3 sales tax Dealers wanted. Burwen Laboratories Inc. 209 Middlesex Turnpike, Burlington, Massachusetts 01803 617-273-1488.

SOLD @ AUCTION: COLLECTORS RECORDS, LP's: Jazz, Soundtracks, Personalities, Original Casts, Country/Western, Blues, Indicate which list from: Ray Macknic, (or) Theo's, 16114 Napa St., Sepulveda, Calif. 91343, U.S.A.

FREE 200-PAGE CATALOG. 1,400 New Stereo Recordings. Renaissance, Baroque, Classical, Romantic, Modern Music. Not sold in stores. Not listed in Schwann's. Highest quality! Budget label prices! Available only by mail. MUSICAL HERITAGE SOCIETY, Box 932 AU, New York, N.Y. 10023.

FREE RECORD COLLECTION — Reviewers wanted. Each month we ship you new record releases to rate. Anyone can qualify. All you pay is postage. You pay nothing for the records. Applicants accepted on first come basis. Write: AUDIO RESEARCH, 6162 Washington Circle, Milwaukee, Wisconsin 53213.

Selling Entire Collection of Records LP's. 45's on Auction Basis Sam Blank, 3545 Woodward Ave., Seaford, NY 11783

COLLECTORS: "MIDWEST GROOVE" newsletter and record exchanger is here. Subscription info send 10c Hydra Productions, Box 792, Palatine, Ill. 60067

RECORD COLLECTORS' CONTACT GUIDE. Dealers, magazines, societies, Handbooks and directories listed. \$3.00. Jackson, 1506 W. Barker, Peoria, Il. 61606.

OLDIES — 45 RPM Original hits. Catalog 50c C&S Record Sales. Box 197, Wampsville, N.Y. 13763.

WHILE YOU WERE LOOKING for out-of-print records, you should've been looking for us. Discontinued, 216 N. Rose, Burbank, California 91505.

FILM-STAGE SOUNDTRACKS. Large free list. A. Lutsky, P.O. Box 557342, Miami, Fla. 33155.

CATALOGS. Broadcasts, soundtracks. Personalities of Thirties, Forties. Box 225, New York, N.Y. 10028

TAPE RECORDINGS

RENT Open Reel or Cassette Prerecorded tape. All labels. Catalog \$1.00. Tape & Time, P.O. Box 740, Hopkins, Minn. 55343.

EVERYTHING ON OPEN REEL! Prerecorded classical/popular tapes. Latest releases. Dolby Quad, 96-page catalogue \$1. Barclay-Crocker, Room 857A, 11 Broadway, NYC 10004.

AMBIPHON'S RECORDS AND TAPES — Quad and stereo. Highest quality available anywhere! Send stamped, addressed envelope to: Ambiphon Records, Dept. A, P.O. Box 341, Kingsbridge Station, Bronx, New York 10463.

AUDIO DEALER PRODUCTS

AT LAST! DEPENDABLE, LOW COST Component Switching Devices for A-B comparison of speakers, amplifiers, and tape decks. Write for information and prices to — B.A. Kunz Electronic Equipment, 12111 La Padera, St. Louis, Mo. 63033.

SPEAKERS

MUSICAL SPEAKERS REPAIRED
ALTEC WARRANTY STATION
Hughes Electronics Service
45 Dunn St., Asheville, N.C. 28806

SAVE 50%. Construct speakers and save money. Send for free catalog and instructions. Speaker Kit, Box 12A, Menomonie, WI 54751.

SPEAKERS: \$55 each — 12" 3-way 12" foam roll woofer, 5" mid-range, 3.5" tweeter — laminated woodgrain cabinet with removable grill. Response 30Hz to 20KHz, 35 watts. 5 year warranty — money back guarantee. Send check or money order to: S.K. & K. Audio, P.O. Box 10176, Milwaukee, Wis. 53210.

SHORTWAVE

HEAR POLICE FIRE Dispatchers. Catalogs show receivers; exclusive directories of "confidential" channels. Send 10c stamp. Communications, Box 56AU, Commack, New York 11725.

INSTRUCTION & EDUCATION

DIGITAL ELECTRONICS! Design and understand Digital Circuits. Increase technical competence. Complete and guaranteed course is highly effective. \$10.00. Free literature. DYNASIGN, Box 60AM, Wayland, Mass. 01778.

EARN B.A. Theology. 1425 N. Rockwell, Oklahoma City, OK 73127.

PROFESSIONAL HI-FI COURSE—Instructors include Len Feldman, Julian Hirsch, Larry Klein, and Larry Zide. Home study course also available. Send \$1.00 for audio primer and full information or visit HI-FI EXPO, 393 5th Ave., New York City 10016.

THE AUDIO WORKSHOP

Comprehensive practical training in SOUND RECORDING, PRODUCTION, and REINFORCEMENT. 16-track facilities for student projects. No prerequisites. Accommodations available. 50 Union Park, Boston, MA 02118 (617) 266-7561.

OPERATE Collection Agency, "Little Gold Mine!" Franklin Credit, Roanoke, VA 24004

THINK Metrically with U.S. Metric Conversion Chart, only \$1.95. Keehn, Dept. 126, P.O.B. 261, Elkhart, IN 46514.

IN SEARCH OF Economic Fundamentals? \$10—Correspondence Course. Money back guarantee. Henry George School, 1318A Beacon Street, Brookline, MA. 02146.

RADIO PROGRAMS

1930-1962 RADIO PROGRAMS, Reels, \$1.00 hour! Cassettes, \$2.00 hour! Mammoth catalog \$1.25. AM TREASURES, Box 192M, Babylon, New York 11702.

RENT RADIO SHOWS — Make your own copies or just listen. Great way to build your collection reasonably. Catalog \$1 refundable. OTR Rental, Box 465, Livermore, Ca. 94550

YESTERDAY'S RADIO PROGRAMS ON TAPE. Reels, cassettes - fast reliable service. Catalog \$1.00 refundable with first order. ADVENTURES, 1301-A North Park Avenue, Inglewood, California 90302.

RENT OLD RADIO PROGRAMS as low as 50c per reel week.

YESTERYEAR RADIO
P.O. Radio
Lone Pine, Calif. 93545

OLD RADIO PROGRAMS ON TAPE. Thousands available. Low prices, finest quality, immediate service. Catalogue 25c. Nostalgic Radio, Box 29K, Peoria, Il. 61601.

RADIO AS IT WAS — Rag time, Honky-Tonk, etc. others. Reel, Cassette, Cartridge, Custom discs. Our package or recorded to your order from our library. Sample cassette and list \$1.25. Refundable. Nostalgic Enterprises, P.O. Box 3786, St. Louis, Mo. 63122.

HELP WANTED

MEN! WOMEN! Jobs on Ships. American, Foreign. Guide \$3.00. Seafax, Dept. Y-2, Box 2049, Port Angeles, Wash. 98362.

EXPERIENCED SALESPERSON or Manager Hi-Fi components. Send resume or call Gloria. HENRY'S, 516 W. 8th, L.A. 90014. (213) 488-0341.

BOOKS

FREE BIBLE-STUDY AID. Written, 1886, "DIVINE PLAN OF THE AGES." Non-denominational. No Obligation. The Divine Plan, Box 991, Albuquerque, NM 87103.

FREE — List of low cost popular books. Success, wealth, personality, happiness, health. How to solve personal problems. Write to: Skelton Enterprises, 4438 Garden Homes Ave., Los Angeles, Calif., 90032.

MUSICAL INSTRUMENTS

UP TO 60% DISCOUNT. Name brand instruments. Catalog. Freeport Music, 455R Route 110, Melville, N.Y. 11746.

40% DISCOUNTS. Huge Stock of Name Brand Instruments. Free Catalog. Gracin's 110 Dept. A, 606 Route 110, Huntington, N.Y. 11746.

COMMUNICATION EQUIPMENT

CB — MARINE — SCANNERS — HAM Buy Below Wholesale. Save up to 50%. Buy Direct From Factory Warehouse. Guaranteed Lowest Prices Anywhere. Catalog \$1.00: WHITLOCK INTERNATIONAL, P.O. Box 131, Wayne, Michigan 48184

AUTO ACCESSORIES

SANDBLASTERS - \$39.50-\$839.50. Free Catalog, Truman, 1330A Market, Youngstown, Ohio 44507.

CORVAIR Parts — 1,000 Different parts. Catalog \$1.00. Clark's Corvair Parts, Shelburne Falls, MA 01370

"The Sony TC-756 set new records for performance of home tape decks."

(Stereo Review, February, 1975)

Hirsch-Houck Laboratories further noted, "The dynamic range, distortion, flutter and frequency-response performance are so far beyond the limitations of conventional program material that its virtues can hardly be appreciated."

The Sony TC-756-2 features a **closed loop dual capstan tape drive system** that reduces wow and flutter to a minimum of 0.03%, **logic controlled transport functions** that permit the feather-touch control buttons to be operated in any sequence, at any time without spilling or damaging tape; an **AC servo control capstan motor** and an eight-pole induction motor for

each of the two reels; a record equalization selector switch for maximum record and playback characteristics with either normal or special tapes; mic attenuators that eliminate distortion caused by overdriving the microphone pre-amplifier stage when using sensitive condenser mics; tape/source monitoring switches that allow instantaneous comparison of program source to the actual recording; a mechanical memory capability that allows the machine to turn itself on and off automatically for unattended recording; and a full, two-year guarantee.*

In addition, the TC-756-2 offers 15 and 7½ ips tape speeds; Ferrite &

Ferrite 2-track/2-channel stereo three-head configuration; and symphase recording that allows you to record FM matrix or SQ** 4-channel sources for playback through a decoder-equipped 4-channel amplifier with virtually non-existent phase differences between channels.

The Sony TC-756-2 is representative of the prestigious Sony 700 Series — the five best three-motor 10½-inch reel home tape decks that Sony has ever engineered. Available now at your nearest Superscope dealer, from \$699.99.

SONY® Brought to you by
SUPERSCOPE



*Superscope, Inc. guarantees to the original registered owner that all parts will be free from operating defects for two years from purchase date. Product will be repaired or replaced free of charge in the sole discretion of Superscope, Inc., provided it was purchased in the U.S.A. from an authorized dealer. The serial number cannot be altered or removed. Product must be serviced by authorized Superscope repair technicians only. **TM CBS, Inc. © 1975 Superscope, Inc., 8150 Vineland Ave., Sun Valley, CA 91352. Prices and models subject to change without notice. Consult the Yellow Pages for your nearest Superscope dealer. Send for free catalog.

The Specification Guarantee.*

Perhaps someday everyone will have it.

You're looking at the new Technics 600 Series, two of the finest cassette decks we've ever made. But equally important, they're also our first examples of "the Specification Guarantee."

The only kind of a specification we feel is worth serious consideration.

That's because "the Specification Guarantee" isn't merely a collection of overly impressive numbers achieved under ideal conditions. It's five meaningful performance specifications that *every* Technics RS-676US and RS-610US cassette deck, including yours, is guaranteed to meet or surpass*. And if by some unlikely chance it doesn't, we will make sure it does. After all, that's what we feel a guarantee is all about.

But the guarantee isn't the only impressive thing about these specs. The numbers are equally impressive. Even when you compare

them with the "unguaranteed" performance figures you usually see. Yet our figures are conservative, understated. Figures that your

unit is likely to surpass rather than just meet. And that makes them even more impressive.

The RS-676US. The RS-610US. And "the Specification Guarantee."

The concept is simple. The execution is precise. The performance is outstanding. The name is Technics.

	RS-676US	RS-610US
Wow & Flutter (JIS WRMS)	0.08% or better	0.15% or better
Frequency Response		
Normal Tape Position	40Hz — 12kHz (+2/-4dB) (+2/-3dB)	50Hz — 10kHz ± 3 dB
CrO ₂ Tape Position	40Hz — 13kHz (+2/-4dB) (+2/-3dB)	50Hz — 12kHz ± 3 dB
S/N Ratio (Weighted, Signal level 250 pWb/mm):		
Without Dolby [†]	50dB or better	49dB or better
With Dolby (Above 5 kHz)	58dB or better	57dB or better
THD (0 VU at 1 kHz)		
Normal Tape Position	2.0% or better	2.3% or better
Speed Accuracy	Within $\pm 1.5\%$	Within $\pm 2.0\%$

[†]Dolby is a trademark of Dolby Laboratories Inc.

*Specification Guarantee will be honored for a period of ninety days from the date of original purchase. Void if the product is damaged, altered, or abused following original sale, or if repaired by other than authorized Panasonic personnel, or if the product is not purchased and retained within the U.S.A. or Puerto Rico. Test procedures are available in detailed description on request from Technics by Panasonic, One Panasonic Way, Secaucus, N.J. 07094. Specification Guarantee is in addition to the usual parts and labor limited warranty.

FOR YOUR TECHNICS DEALER, CALL TOLL FREE 800 447-4700.
IN ILLINOIS, 800 322-4400. Check No. 46 on Reader Service Card

Technics

by Panasonic

